

JUNIPER NETWORKS INC

FORM S-1

(Securities Registration Statement)

Filed 09/01/99

Address 1133 INNOVATION WAY

SUNNYVALE, CA 94089

Telephone 4087452000

CIK 0001043604

Symbol JNPR

SIC Code 3576 - Computer Communications Equipment

Industry Communications Equipment

Sector Technology

Fiscal Year 12/31



JUNIPER NETWORKS INC

FORM S-1

(Securities Registration Statement)

Filed 9/1/1999

Address 1194 NORTH MATHILDA AVE

SUNNYVALE, California 94089

Telephone 650-526-8000

CIK 0001043604

Industry Communications Equipment

Sector Technology

Fiscal Year 12/31



SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

JUNIPER NETWORKS, INC.

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)

3661
(PRIMARY STANDARD INDUSTRIAL
CLASSIFICATION CODE NUMBER)

77-0422528 (I.R.S. EMPLOYER IDENTIFICATION NUMBER)

385 RAVENDALE DRIVE MOUNTAIN VIEW, CA 94043

(ADDRESS, INCLUDING ZIP CODE, OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

LISA C. BERRY
GENERAL COUNSEL AND SECRETARY
JUNIPER NETWORKS, INC.
385 RAVENDALE DRIVE
MOUNTAIN VIEW, CA 94043

(650) 526-8000

(NAME, ADDRESS, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

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(415) 442-0900

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:

As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box. []

If this Form is file to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. [] If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. []

TITLE OF EACH CLASS OF SECURITIES	AMOUNT TO BE	PROPOSED MAXIMUM OFFERING PRICE	PROPOSED MAXIMUM	AMOUNT OF
TO BE REGISTERED	REGISTERED	PER SHARE(1)	PRICE(2)	REGISTRATION FEE
Common Stock, \$0.00001 par value	5,750,000 shares	\$208.07	\$1,196,402,500	\$332,600

- (1) Includes 750,000 shares which the Underwriters have the option to purchase to cover over-allotments, if any.
- (2) Estimated solely for the purpose of computing the registration pursuant to Rule 457(c) of the Securities Act of 1933, as amended, and based upon the average high and low sales prices on August 31, 1999, as reported on the Nasdaq National Market.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

THE INFORMATION IN THIS PRELIMINARY PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THESE SECURITIES MAY NOT BE SOLD UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PRELIMINARY PROSPECTUS IS NOT AN OFFER TO SELL NOR DOES IT SEEK AN OFFER TO BUY THESE SECURITIES IN ANY JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION. DATED SEPTEMBER, 1999.

5,000,000 Shares

[Juniper logo]

Common Stock

Juniper Networks, Inc. is offering 1,500,000 of the shares to be sold in the offering. The selling stockholders identified in this prospectus are offering an additional 3,500,000 shares. Juniper Networks will not receive any of the proceeds from the sale of shares being sold by the selling stockholders.

The common stock is quoted on the Nasdaq National Market under the symbol "JNPR". The last reported sale price of the common stock on August, 1999 was \$ per share.

See "Risk Factors" beginning on page 6 to read about the certain factors you should consider before buying shares of the common stock.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER REGULATORY BODY HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Share	Total
Initial price to public	\$	\$
Underwriting discount	\$	\$
Proceeds, before expenses, to Juniper Networks	\$	\$
Proceeds, before expenses, to the selling stockholders	\$	\$

To the extent the underwriters sell more than 5,000,000 shares of common stock, the underwriters have the option to purchase up to an additional 272,564 shares from Juniper Networks and 477,436 shares from selling stockholders at the initial price to public less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on , 1999.

GOLDMAN, SACHS & CO. CREDIT SUISSE FIRST BOSTON

BANCBOSTON ROBERTSON STEPHENS
DAIN RAUSCHER WESSELS
A DIVISION OF DAIN
RAUSCHER INCORPORATED
SG COWEN
WARBURG DILLON READ LLC

Prospectus dated, 1999.



PROSPECTUS SUMMARY

You should read the following summary together with the more detailed information regarding Juniper Networks, the common stock being sold in this offering and our consolidated financial statements, including the notes to those statements, appearing elsewhere in this prospectus. Unless otherwise indicated, this prospectus assumes that the underwriters' option to purchase additional shares in the offering will not be exercised.

JUNIPER NETWORKS

We are a leading provider of Internet infrastructure solutions that enable Internet service providers and other telecommunications service providers to meet the demands resulting from the rapid growth of the Internet. We deliver next generation Internet backbone routers that are specifically designed, or purpose-built, for service provider networks and offer our customers increased reliability, performance, scalability, interoperability and flexibility, and reduced complexity and cost compared to current alternatives. Our flagship product is the M40 Internet backbone router. The M40 combines the features of our JUNOS Internet Software, high performance ASIC-based (application specific integrated circuit) packet forwarding technology and Internet optimized architecture into a purpose-built solution for service providers. Unlike conventional routers, which were originally developed for enterprise applications and are increasingly inadequate for service provider use in public networks, our Internet backbone routers are specifically designed to accommodate the size and scope of the Internet.

We sell our Internet backbone routers primarily through a direct sales force and an original equipment manufacturer. Our M40 Internet backbone router is currently used by several of the world's leading service providers, such as UUNet, an MCI WorldCom Company, Cable & Wireless USA, AT&T/IBM Global Services, Frontier GlobalCenter Inc. and Verio Inc.

We believe that the Internet will continue to grow at significant rates and will evolve into the next generation public network, superseding and expanding upon many of the functions provided by the traditional telephone network. This trend will drive the need for new Internet infrastructure equipment that can deliver the high levels of reliability and scalability needed in a public network. We believe we have developed the first commercially available Internet backbone routing platform specifically designed and built to meet these requirements. Ryan Hankin Kent, an industry research firm, estimates that the market for Internet backbone routers was \$169 million in 1998 and is expected to increase to approximately \$5.5 billion in 2003.

Our objective is to become the primary supplier of high performance Internet backbone infrastructure equipment. The following are key elements of our strategy:

- leverage our early lead as supplier of purpose-built Internet infrastructure equipment;
- work closely with our key customers;
- increase our penetration in major service providers;
- leverage our early successes to rapidly penetrate new customers;
- expand our sales and distribution network;
- maintain and extend our technology leadership; and
- enable new IP-based services.

Our principal executive offices are located at 385 Ravendale Drive, Mountain View, California 94043, and our telephone number is (650) 526-8000. Juniper Networks is a registered trademark and the Juniper Networks logo and M40 are trademarks of Juniper Networks. Each trademark, trade name or service mark of any other company appearing in this prospectus belongs to its holder. Information contained on our website, www.juniper.net, does not constitute part of

the prospectus. We were incorporated in the State of California in February 1996, and we reincorporated in the State of Delaware in March 1998.

THE OFFERING

The following information assumes that the underwriters do not exercise the option granted by us and the selling stockholders listed on page under the caption "Principal and Selling Stockholders" to purchase additional shares in this offering. See "Underwriting."

Shares offered by Juniper Networks	1,500,000
Shares offered by the selling stockholders	3,500,000
Shares to be outstanding after the offering(1)	51,277,014
Use of proceeds	For general corporate purposes, principally
	working capital and capital expenditures.
Nasdaq National Market symbol	"JNPR"

- (1) Based on shares outstanding as of June 30, 1999. It excludes:
- 8,181,683 shares of common stock reserved for issuance under our Amended 1996 Stock Plan, of which 5,007,695 shares were subject to outstanding options at a weighted average exercise price of \$10.59 per share, and 3,173,988 shares were available for future grants;
- 240,410 shares of common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of \$1.71 per share; and
- 500,000 shares available for issuance under our 1999 Employee Stock Purchase Plan. See "Capitalization," "Management -- Incentive Stock Plans," "Description of Capital Stock" and Notes 5, 6 and 10 to the Consolidated Financial Statements.

SUMMARY CONSOLIDATED FINANCIAL INFORMATION (IN THOUSANDS)

	PERIOD FROM INCEPTION (FEBRUARY 2, 1996)		R 31,	SIX MONTHS ENDED JUNE 30,	
	TO DECEMBER 31, 1996		1998		
CONSOLIDATED STATEMENT OF OPERATIONS DATA:				(UNAUD	ITED)
Net revenues	\$ (1,939) (1,799)	(11,598)	\$ 3,807 (32,270) (30,971)	(12,052)	(10,965)
			J	UNE 30, 199	9
			ACTUA	A L ADJUS	
govoor				(UNAUDITED)	
CONSOLIDATED BALANCE SHE Cash, cash equivalents a: Working capital	nd short-term investme		99,3		
Total assets Long-term obligations, lo Stockholders' equity	ess current portion		2,5	21 2,	521

⁽¹⁾ The consolidated balance sheet data at June 30, 1999, as adjusted, gives effect to the sale of the shares at the assumed price to the public of \$, after deducting the underwriting discount and estimated offering expenses payable by us.

RISK FACTORS

This offering involves a high degree of risk. You should carefully consider the risks described below before making an investment decision.

OUR FAILURE TO INCREASE OUR REVENUES WOULD PREVENT US FROM ACHIEVING AND MAINTAINING PROFITABILITY.

We have incurred significant losses since inception and expect to continue to incur losses in the future. As of June 30, 1999, we had an accumulated deficit of \$53.7 million. Although our net revenues have grown from zero in the quarter ended September 30, 1998 to \$17.6 million in the quarter ended June 30, 1999, we cannot be certain that our revenues will continue to grow, or that we will achieve sufficient revenues to achieve profitability. We have large fixed expenses and we expect to continue to incur significant and increasing sales and marketing, product development and administrative expenses. As a result, we will need to generate significantly higher revenues to achieve and maintain profitability. See "Selected Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Consolidated Financial Statements and the Notes to the Consolidated Financial Statements for more information on our results of operations.

OUR LIMITED OPERATING HISTORY MAKES FORECASTING DIFFICULT.

As a result of our limited operating history, it is difficult to forecast accurately our revenues, and we have limited meaningful historical financial data upon which to base planned operating expenses. Specifically, we began operations in February 1996, introduced our M40 Internet backbone router product in September 1998 and began shipping the M40 in volume in October 1998. In addition, our operating expenses are largely based on anticipated revenue trends and a high percentage of our expenses are and will continue to be fixed in the short-term. The revenue and income potential of our products and business are unproven and the market that we are addressing is rapidly evolving. If we do not achieve our expected revenues, our operating results will be below our expectations and the expectations of investors and market analysts, which could cause the price of our common stock to decline.

THE M40 CURRENTLY IS OUR ONLY PRODUCT AND A SIGNIFICANT PORTION OF OUR FUTURE REVENUE DEPENDS ON ITS COMMERCIAL SUCCESS.

Our future growth and a significant portion of our future revenue depends on the commercial success of our M40 Internet backbone router, which is the only product that we currently offer. Many customers who have purchased the M40 have not yet fully deployed the product in large network environments and may not choose to do so. Even if our customers do fully deploy our product, it may not operate as expected. Failure of the M40 to operate as expected could delay or prevent its adoption. If our target customers do not widely adopt, purchase and successfully deploy the M40, our revenues will not grow significantly and our business, financial condition and results of operations will be seriously harmed.

OUR SUCCESS DEPENDS ON OUR ABILITY TO DEVELOP PRODUCTS AND PRODUCT ENHANCEMENTS

THAT WILL ACHIEVE MARKET ACCEPTANCE.

We cannot assure you that we will be able to develop new products or product enhancements in a timely manner, or at all. Any failure to develop new products or product enhancements will substantially decrease market acceptance and sales of our present and future products which will significantly harm our business and financial results. Even if we are able to develop and commercially introduce new products and enhancements, we cannot assure you that the new products or enhancements will achieve widespread market acceptance. Any failure of our future products to achieve market

THE LONG SALES AND IMPLEMENTATION CYCLES FOR THE M40, AS WELL AS OUR

EXPECTATION THAT CUSTOMERS WILL SPORADICALLY PLACE LARGE ORDERS WITH SHORT LEAD TIMES MAY CAUSE REVENUES AND OPERATING RESULTS TO VARY SIGNIFICANTLY FROM

QUARTER TO QUARTER.

A customer's decision to purchase the M40 involves a significant commitment of its resources and a lengthy evaluation and product qualification process. As a result, our sales cycle may be lengthy. Throughout the sales cycle, we often spend considerable time educating and providing information to prospective customers regarding the use and benefits of the M40. Even after making the decision to purchase the M40, our customers tend to deploy the M40 slowly and deliberately. Timing of deployment can vary widely and depends on the skill set of the customer, the size of the network deployment, the complexity of the customer's network environment and the degree of hardware and software configuration necessary to deploy the M40. Customers with large networks usually expand their networks in large increments on a periodic basis. Accordingly, we expect to receive purchase orders for significant dollar amounts on an irregular basis. Because of our limited operating history, we cannot predict these sales and development cycles. These long cycles, as well as our expectation that customers will tend to sporadically place large orders with short lead times, may cause our revenues and operating results to vary significantly and unexpectedly from quarter to quarter.

WE HAVE A LIMITED NUMBER OF CUSTOMERS UPON WHOM WE RELY, AND ANY DECREASE IN REVENUE FROM THESE CUSTOMERS COULD HAVE AN ADVERSE EFFECT ON US.

We began recognizing revenues from sales of the M40 in the quarter ended December 31, 1998. A significant portion of our revenues to date have been recognized from a limited number of customers with two customers representing 62% of our revenues for the six months ended June 30, 1999. We expect that the majority of our revenues will continue to depend on sales of the M40 to a small number of customers. Any downturn in the business of these customers or potential new customers could significantly decrease the sales of the M40 to these customers which could seriously harm our revenues and results of operations.

IF THE INTERNET DOES NOT CONTINUE TO EXPAND AS A WIDESPREAD COMMUNICATIONS MEDIUM, DEMAND FOR OUR PRODUCTS MAY DECLINE SIGNIFICANTLY.

Our future success depends on the continued growth of the Internet as a widely used medium for commerce and communication. If the Internet does not continue to expand as a widespread communications medium and commercial marketplace, the growth of the market for Internet infrastructure equipment may not continue and the demand for our products could decline significantly.

WE FACE INTENSE COMPETITION THAT COULD REDUCE OUR MARKET SHARE.

Competition in the Internet infrastructure market is intense. This market has historically been dominated by Cisco Systems with other companies such as Bay Networks (acquired by Nortel Networks) and Ascend (recently acquired by Lucent Technologies) providing products to a smaller segment of the market. In addition, a number of private companies have announced plans for new products to address the same problems which our products address.

In order to compete effectively in the Internet router market we must deliver products which:

- provide extremely high network reliability;
- provide high performance interfaces and packet processing capabilities;
- scale easily and efficiently with minimum disruption to the network;
- interoperate with existing network designs and equipment vendors;

- reduce the complexity of the network by decreasing the need for overlapping equipment; and
- provide a cost-effective solution for service providers.

If we are unable to compete successfully against our current and future competitors, we could experience price reductions, reduced gross margins and loss of market share, any one of which could materially and adversely affect our business, operating results and financial condition. See "Business -- Competition" for detailed information about our competition.

WE MUST EXPAND SUBSTANTIALLY OUR DIRECT AND INDIRECT SALES OPERATIONS IN ORDER TO INCREASE MARKET AWARENESS AND SALES OF OUR PRODUCTS.

Our products and services require a sophisticated sales effort targeted at several key people within each of our prospective customers' organizations. This sales effort requires the efforts of select personnel as well as specialized system and consulting engineers. We have recently expanded our direct sales force and plan to hire additional qualified sales personnel and system and consulting engineers. Competition for these individuals is intense, and we might not be able to hire the kind and number of sales personnel and system and consulting engineers we need. In addition, we believe that our future success is dependent upon establishing successful relationships with a variety of distribution partners. We have entered into agreements with only a small number of distribution partners. In addition, some of our distribution partners also sell products that compete with the M40. We cannot be certain that we will be able to reach agreement with additional distribution partners on a timely basis or at all, or that our distribution partners will devote adequate resources to selling our products.

If we are unable to expand our direct and indirect sales operations, we may not be able to increase market awareness or sales of our products, which may prevent us from achieving and maintaining profitability.

IF WE DO NOT EXPAND SUBSTANTIALLY OUR CUSTOMER SERVICE AND SUPPORT ORGANIZATION, SALES OF OUR PRODUCTS MAY BE SIGNIFICANTLY REDUCED.

The complexity of our products and the difficulty of installing them require highly trained customer service and support personnel. We currently have a small customer service and support organization and will need to increase our staff to support new customers and the expanding needs of existing customers. Hiring customer service and support personnel is very competitive in our industry due to the limited number of people available with the necessary technical skills and understanding of the Internet. If we are unable to expand our customer service and support organization, we may not be able to increase sales of our products, which would seriously harm our business.

WE ARE DEPENDENT ON SOLE SOURCE AND LIMITED SOURCE SUPPLIERS FOR SEVERAL KEY COMPONENTS, AND IF WE ARE UNABLE TO BUY THESE COMPONENTS ON A TIMELY BASIS, WE WILL NOT BE ABLE TO DELIVER THE M40 TO OUR CUSTOMERS.

We currently purchase several key components, including ASICs and power supplies, from single or limited sources. We worked with IBM for over two years to develop several of our key proprietary application specific integrated circuits, or ASICs, which are custom designed integrated circuits built to perform a specific function more rapidly than a general purpose microprocessor. IBM is currently our sole source supplier of these ASICs. These ASICs are very complex, and we may not be able to develop an alternate source to IBM in a timely manner, which could hurt our ability to deliver the M40 to our customers. We also purchase power supplies from a single source and purchase other custom components from other sole or limited sources. If we are unable to buy these components on a timely basis, we will not be able to deliver the M40 to our customers, which would negatively impact present and future sales and revenue which would, in turn, seriously harm our business.

WE CURRENTLY DEPEND ON ONE CONTRACT MANUFACTURER, AND IF WE HAVE TO QUALIFY A NEW CONTRACT MANUFACTURER WE MAY LOSE REVENUE AND DAMAGE OUR CUSTOMER RELATIONSHIPS.

Solectron, a third party manufacturer for numerous companies, manufactures the M40 at its Milpitas, California facility on a purchase order basis and is our sole manufacturer. We currently do not have a long-term supply contract with Solectron.

Qualifying a new contract manufacturer and commencing volume production is expensive and time consuming. If we are required or choose to change contract manufacturers, we may lose revenue and damage our customer relationships.

IF WE FAIL TO ACCURATELY PREDICT OUR MANUFACTURING REQUIREMENTS, WE COULD INCUR ADDITIONAL COSTS OR EXPERIENCE MANUFACTURING DELAYS.

Because we currently do not have a long-term supply contract with Solectron, it is not obligated to supply products to us for any specific period, in any specific quantity or at any certain price, except as may be provided in a particular purchase order. We provide forecasts of our demand to Solectron up to six months prior to scheduled delivery of products to our customers. If we overestimate our requirements, Solectron may have excess inventory, which would increase our costs. If we underestimate our requirements, Solectron may have an inadequate inventory, which could interrupt manufacturing of our products and result in delays in shipments and revenues. In addition, lead times for materials and components we order vary significantly and depend on factors such as the specific supplier, contract terms and demand for each component at a given time. We also may experience shortages of certain components from time to time, which also could delay the manufacturing of our products.

WE DEPEND UPON SOLECTRON TO MANUFACTURE OUR PRODUCTS ON A TIMELY BASIS.

We plan to regularly introduce new products and product enhancements, which will require that we coordinate our efforts with those of our suppliers and Solectron to rapidly achieve volume production. If we should fail to effectively manage our relationship with Solectron, or if Solectron experiences delays, disruptions or quality control problems in its manufacturing operations, our ability to ship products to our customers could be delayed.

THE UNPREDICTABILITY AND SEASONALITY OF OUR QUARTERLY RESULTS MAY ADVERSELY AFFECT THE TRADING PRICE OF OUR COMMON STOCK.

Our revenues and operating results will vary significantly from quarter to quarter due to a number of factors, many of which are outside of our control and any of which may cause our stock price to fluctuate. The primary factors that may affect us include the following:

- demand for the M40;
- the timing of sales of the M40;
- the timing of recognizing revenue and deferred revenue;
- new product introductions by our competitors;
- changes in our pricing policies or the pricing policies of our competitors;
- our ability to develop, introduce and ship new products and product enhancements that meet customer requirements in a timely manner;
- our ability to obtain sufficient supplies of the sole or limited source components, including ASICs and power supplies for the M40;
- increases in the prices of the components we purchase;
- our ability to attain and maintain production volumes and quality levels for the M40;
- decisions by end-users to reallocate their information resources to other purposes, including year 2000 preparedness;
- Internet growth and demand for Internet infrastructure;
- prototype expenses;

- costs related to acquisitions of technology or businesses; and
- general economic conditions as well as those specific to the Internet and related industries.

In addition, we are dependent on decisions by customers to build their Internet infrastructure, which decisions are in turn dependent upon the success and expected demand for the services offered by those customers. Furthermore, the long sales and implementation cycles for the M40, as well as the degree to which customers will sporadically place large orders with short lead times, may cause revenues and operating results to vary significantly from quarter to quarter.

We also expect to experience seasonality in our operating results. Our customers may accept shipments of products during the fourth quarter of this year and the first quarter of next year; however, due to the uncertainties of the year 2000 problem, they may not integrate the products into their networks until a later time which could adversely affect our revenues in those quarters. In addition, we expect the growth rate in our sales in the first quarter to be adversely affected due to our customers' budgeting cycles.

We plan to increase significantly our operating expenses to fund greater levels of research and development, expand our sales and marketing operations, broaden our customer support capabilities and develop new distribution channels. We also plan to expand our general and administrative functions to address the increased reporting and other administrative demands, which will result from being a publicly traded company and the increasing size of our business. Our operating expenses are largely based on anticipated revenue trends and a high percentage of our expenses are, and will continue to be, fixed in the short term. As a result, a delay in generating or recognizing revenue for the reasons set forth above, or for any other reason, could cause significant variations in our operating results from quarter to quarter and could result in substantial operating losses.

Due to the foregoing factors, we believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance. It is likely that in some future quarters, our operating results may be below the expectations of public market analysts and investors. In this event, the price of our common stock may fall.

IF OUR PRODUCTS DO NOT INTEROPERATE WITH OUR CUSTOMERS' NETWORKS, INSTALLATIONS WILL BE DELAYED OR CANCELLED AND COULD RESULT IN SUBSTANTIAL PRODUCT RETURNS

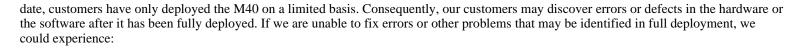
WHICH COULD HARM OUR BUSINESS.

Our products are designed to interface with our customers' existing networks, each of which has different specifications and utilizes multiple protocol standards. Many of our customers' networks contain multiple generations of products that have been added over time as these networks have grown and evolved. Our products must interoperate with all of the products within these networks as well as future products in order to meet our customers' requirements. If we find errors in the existing software used in our customers' networks, we must modify our JUNOS Internet Software to fix or overcome these errors so that our products will interoperate and scale with the existing software and hardware. If our products do not interoperate with those of our customers' networks, installations could be delayed, orders for our products could be cancelled or our products could be returned. This would also seriously harm our reputation, which could seriously harm our business and prospects.

BECAUSE OUR PRODUCTS ARE COMPLEX AND ARE DEPLOYED IN COMPLEX ENVIRONMENTS, THEY MAY HAVE ERRORS OR DEFECTS THAT WE FIND ONLY AFTER FULL DEPLOYMENT, WHICH COULD

SERIOUSLY HARM OUR BUSINESS.

The M40, including our JUNOS Internet Software, is a highly complex product. In addition, the M40 is designed to be deployed in very large and complex networks. Although we have thoroughly tested the M40, because of the nature of the product, it can only be fully tested when deployed in very large networks with high amounts of traffic. To



- loss of or delay in revenues and loss of market share;
- loss of customers;
- failure to achieve market acceptance;
- diversion of development resources;
- increased service and warranty costs;
- legal actions by our customers; and
- increased insurance costs.

CUSTOMER PRODUCT LIABILITY CLAIMS BASED ON ERRORS IN OUR SOFTWARE OR MISTAKES IN PERFORMING OUR SERVICES COULD RESULT IN COSTLY LITIGATION AGAINST US.

We may be subject to claims based on errors in our software or mistakes in performing our services, including claims relating to damages to our customers' internal systems. Our contracts with our customers generally contain provisions designed to limit our exposure to potential product liability claims, such as disclaimers of warranties and limitations on liability for special, consequential and incidental damages. We believe our product liability insurance is adequate to cover potential product liability claims. However, a product liability claim, whether successful or not, could seriously impact our capital reserves, harm our reputation, and direct the attention of key personnel away from our business, any of which could harm our business.

PROBLEMS ARISING FROM USE OF OUR PRODUCTS IN CONJUNCTION WITH OTHER VENDORS' PRODUCTS COULD DISRUPT OUR BUSINESS AND HARM OUR FINANCIAL CONDITION.

Service providers typically use our products in conjunction with products from other vendors. As a result, when problems occur, it may be difficult to identify the source of the problem. These problems may cause us to incur significant warranty and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relations problems.

OUR PRODUCTS ARE NEW AND FACE RAPID TECHNOLOGICAL CHANGES AND EVOLVING STANDARDS AND IF WE DO NOT RESPOND IN A TIMELY MANNER, OUR BUSINESS COULD BE HARMED.

The Internet infrastructure market is characterized by rapid technological change, frequent new product introductions, changes in customer requirements and evolving industry standards. In developing our products, we have made, and will continue to make, assumptions with respect to which standards will be adopted by our customers and competitors. If the standards adopted are different from those which we have chosen to support, market acceptance of our products may be significantly reduced or delayed and our business will be seriously harmed. In addition, the introduction of products embodying new technologies and the emergence of new industry standards could render our existing products obsolete.

In addition, in order to introduce products embodying new technologies and new industry standards, we must be able to gain access to the latest technologies of our suppliers such as IBM. Any failure to gain access to the latest technologies could harm our business and operating results.

OUR FAILURE TO ESTABLISH AND MAINTAIN KEY CUSTOMER RELATIONSHIPS MAY RESULT IN DELAYS IN INTRODUCING NEW PRODUCTS OR CAUSE CUSTOMERS TO FOREGO PURCHASING OUR PRODUCTS.

Our future success will also depend upon our ability to develop and manage key customer relationships in order to introduce a variety of new products and product enhancements that address the increasingly sophisticated needs of our customers. Our failure to establish and maintain these customer relationships may adversely affect

our ability to develop new products and product enhancements. In addition, we may experience delays in releasing new products and product enhancements in the future. Material delays in introducing new products and enhancements or our inability to introduce competitive new products may cause customers to forego purchases of our products and purchase those of our competitors, which could seriously harm our business.

IF WE FAIL TO MANAGE EXPANSION EFFECTIVELY, OUR BUSINESS, FINANCIAL CONDITION AND PROSPECTS COULD BE SERIOUSLY HARMED.

Our ability to successfully offer our products and implement our business plan in a rapidly evolving market requires an effective planning and management process. We continue to increase the scope of our operations domestically and internationally and have grown our headcount substantially. At December 31, 1997, we had a total of 80 employees and at June 30, 1999, we had a total of 265 employees. In addition, we plan to continue to hire a significant number of employees this year. This growth has placed, and our anticipated growth in future operations will continue to place, a significant strain on our management systems and resources. We expect that we will need to continue to improve our financial and managerial controls, reporting systems and procedures, and will need to continue to expand, train and manage our work force worldwide. Furthermore, we expect that we will be required to manage multiple relationships with various customers and other third parties.

WE DEPEND ON OUR KEY PERSONNEL TO MANAGE OUR BUSINESS EFFECTIVELY IN A RAPIDLY CHANGING MARKET AND IF WE ARE UNABLE TO HIRE ADDITIONAL PERSONNEL, OUR ABILITY TO SELL OUR PRODUCTS COULD BE HARMED.

Our future success depends upon the continued services of our executive officers and other key engineering, sales, marketing and support personnel. None of our officers or key employees is bound by an employment agreement for any specific term and we do not have "key person" life insurance policies covering any of our employees.

We also intend to hire a significant number of engineering, sales, marketing and support personnel in the future, and we believe our success depends, in large part, upon our ability to attract and retain these key employees. Competition for these persons is intense, especially in the San Francisco Bay area. In particular, we have experienced difficulty in hiring qualified ASIC, software, system and test and customer support engineers and there can be no assurance that we will be successful in attracting and retaining these individuals. The loss of the services of any of our key employees, the inability to attract or retain qualified personnel in the future, or delays in hiring required personnel, particularly engineers and sales personnel, could delay the development and introduction of and negatively impact our ability to sell our products.

IF WE BECOME SUBJECT TO UNFAIR HIRING CLAIMS WE COULD INCUR SUBSTANTIAL COSTS IN

DEFENDING OURSELVES.

Companies in our industry whose employees accept positions with competitors frequently claim that their competitors have engaged in unfair hiring practices. We have received claims of this kind in the past and we cannot assure you that we will not receive claims of this kind in the future as we seek to hire qualified personnel or that those claims will not result in material litigation. We could incur substantial costs in defending ourselves against these claims, regardless of their merits.

OUR BUSINESS WILL BE ADVERSELY AFFECTED IF WE ARE UNABLE TO PROTECT OUR INTELLECTUAL PROPERTY RIGHTS FROM THIRD-PARTY CHALLENGES.

We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We also enter into confidentiality or license agreements with our employees, consultants and corporate partners, and control access to and distribution of our software, documentation

and other proprietary information. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our products is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States.

NECESSARY LICENSES OF THIRD-PARTY TECHNOLOGY MAY NOT BE AVAILABLE TO US OR MAY BE VERY EXPENSIVE.

From time to time we may be required to license technology from third parties to develop new products or product enhancements. We cannot assure you that third party licenses will be available to us on commercially reasonable terms, if at all. The inability to obtain any third-party license required to develop new products and product enhancements could require us to obtain substitute technology of lower quality or performance standards or at greater cost either of which could seriously harm our business, financial condition and results of operations.

WE COULD BECOME SUBJECT TO LITIGATION REGARDING INTELLECTUAL PROPERTY RIGHTS WHICH COULD SERIOUSLY HARM OUR BUSINESS.

In recent years, there has been significant litigation in the United States involving patents and other intellectual property rights. Although we have never been involved in any intellectual property litigation, we may be a party to litigation in the future to protect our intellectual property or as a result of an alleged infringement of others' intellectual property. These claims and any resulting lawsuit, if successful, could subject us to significant liability for damages and invalidation of our proprietary rights. These lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management time and attention. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop selling, incorporating or using our products that use the challenged intellectual property;
- obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all; or
- redesign those products that use such technology.

If we are forced to take any of the foregoing actions, our business may be seriously harmed. Although we carry general liability insurance, our insurance may not cover potential claims of this type or may not be adequate to indemnify us for all liability that may be imposed. For more information concerning our intellectual property rights, see "Business -- Intellectual Property."

WE FACE RISKS ASSOCIATED WITH OUR INTERNATIONAL OPERATIONS THAT COULD HARM OUR FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

We market and sell our products in the United States and internationally. We have established an office in England, The Netherlands and Japan to market and sell our products in Europe and Asia, respectively.

We intend to expand substantially our international operations and enter new international markets. This expansion will require significant management attention and financial resources to develop successfully direct and indirect international sales and support channels. We may not be able to maintain or increase international market demand for the M40.

We currently have limited experience in marketing and distributing our products internationally and in developing versions of our products that comply with local standards. In addition, international operations are subject to other inherent risks, including:

- greater difficulty in accounts receivable collection and longer collection periods;

- difficulties and costs of staffing and managing foreign operations;
- the impact of recessions in economies outside the United States;
- unexpected changes in regulatory requirements;
- certification requirements;
- reduced protection for intellectual property rights in some countries;
- potentially adverse tax consequences; and
- political and economic instability.

Our international revenues were \$4.4 million for the six months ended June 30, 1999 and are generally denominated in U.S. dollars. Consequently, we do not currently engage in currency hedging activities. However, a portion of our international revenues may be denominated in foreign currencies in the future.

WE FACE A NUMBER OF UNKNOWN RISKS ASSOCIATED WITH YEAR 2000 PROBLEMS.

The year 2000 computer problem refers to the potential for system and processing failures of date-related data as a result of computer-controlled systems using two digits rather than four to define the applicable year. For example, computer programs that have time-sensitive software may recognize a date represented as "00" as the year 1900 rather than the year 2000. This could result in a system failure or miscalculations causing disruptions of operations, including among other things, a temporary inability to process transactions, send invoices or engage in similar normal business activities.

We have designed the M40 for use in the year 2000 and beyond and believe it is year 2000 compliant. However, our products are generally integrated into larger networks involving sophisticated hardware and software products supplied by other vendors. Each of our customers' networks involves different combinations of third party products. We cannot evaluate whether all of their products are year 2000 compliant. We may face claims based on year 2000 problems in other companies' products or based on issues arising from the integration of multiple products within the overall network. Although no claims of this kind have been made, we may in the future be required to defend our products in legal proceedings which could be expensive regardless of the merits of these claims.

If our suppliers, vendors, major distributors, partners, customers and service providers fail to correct their year 2000 problems, these failures could result in an interruption in, or a failure of, our normal business activities or operations. If a year 2000 problem occurs, it may be difficult to determine which party's products have caused the problem. These failures could interrupt our operations and damage our relationships with our customers. Due to the general uncertainty inherent in the year 2000 problem resulting from the readiness of third-party suppliers and vendors, we are unable to determine at this time whether year 2000 failures could harm our business and our financial results.

Our customers' purchasing plans could be affected by year 2000 issues if they need to expend significant resources to fix their existing systems to become year 2000 compliant. This situation may reduce funds available to purchase our products. In addition, some customers may wait to purchase our products until after the year 2000, which may reduce our revenue. See "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Year 2000 Compliance."

ANY ACQUISITIONS WE MAKE COULD DISRUPT OUR BUSINESS AND HARM OUR FINANCIAL CONDITION.

We intend to make investments in complementary companies, products or technologies. In the event of any such investments or acquisitions, we could:

- issue stock that would dilute our current stockholders' percentage ownership;
- incur debt;
- assume liabilities;
- incur amortization expenses related to goodwill and other intangible assets; or
- incur large and immediate write-offs.

These acquisitions also involve numerous risks, including:

- problems combining the purchased operations, technologies or products;
- unanticipated costs;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with suppliers and customers;
- risks associated with entering markets in which we have no or limited prior experience; and
- potential loss of key employees, particularly those of the acquired organizations.

We cannot assure you that we will be able to successfully integrate any businesses, products, technologies or personnel that we might acquire in the future.

MANAGEMENT MAY APPLY THE PROCEEDS OF THIS OFFERING TO USES THAT DO NOT INCREASE

OUR PROFITS OR MARKET VALUE.

Our management will have considerable discretion in the application of the net proceeds from this offering, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our profitability or our market value. Pending application of the proceeds, they may be placed in investments that do not produce income or that lose value. See "How We Intend to Use the Proceeds From This Offering."

INSIDERS WILL CONTINUE TO HAVE SUBSTANTIAL CONTROL OVER JUNIPER NETWORKS AFTER THIS OFFERING AND COULD DELAY OR PREVENT A CHANGE IN CORPORATE CONTROL.

We anticipate that the executive officers, directors and entities affiliated with them will, in the aggregate, beneficially own approximately 42.1% of our outstanding common stock following the completion of this offering. These stockholders, if acting together, would be able to influence significantly all matters requiring approval by our stockholders, including the election of directors and the approval of mergers or other business combination transactions. See "Principal and Selling Stockholders."

PROVISIONS OF OUR CHARTER DOCUMENTS MAY HAVE ANTI-TAKEOVER EFFECTS THAT COULD PREVENT A CHANGE IN OUR CONTROL.

Provisions of our amended and restated certificate of incorporation, bylaws, and Delaware law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders. See "Description of Capital Stock."

THERE MAY BE SALES OF A SUBSTANTIAL AMOUNT OF OUR COMMON STOCK AFTER THIS OFFERING THAT COULD CAUSE OUR STOCK PRICE TO FALL.

Our common stock began trading on the Nasdaq National Market on June 25, 1999; however, to date there have been a limited number of shares trading in the public market. This offering will result in additional shares of our common stock being available on the open market. In addition, our current stockholders hold a substantial number of shares, which they will be able to sell in the public market in the near future. Sales of a substantial number of shares of our common stock in this offering and thereafter could cause our stock price to fall. In addition, the sale of shares by our stockholders could impair our ability to raise capital through the sale of additional stock. See "Shares Eligible for Future Sale."

WE EXPECT TO EXPERIENCE VOLATILITY IN OUR SHARE PRICE WHICH COULD NEGATIVELY AFFECT YOUR INVESTMENT.

The market price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control, including:

- quarterly variations in operating results;
- changes in financial estimates by securities analysts;

- changes in market valuations of Internet related companies;
- announcements by us or our competitors of new products or of significant acquisitions, strategic partnerships or joint ventures;
- any loss of a major customer;
- additions or departures of key personnel;
- any deviations in net revenues or in losses from levels expected by securities analysts;
- future sales of common stock; and
- volume fluctuations, which are particularly common among highly volatile securities of Internet related companies.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. We use words such as "anticipates," "believes," "plans," "expects," "future," "intends" and similar expressions to identify forward-looking statements. This prospectus also contains forward-looking statements attributed to third parties relating to their estimates regarding the growth of Internet use. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this prospectus. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us and described in the preceding pages and elsewhere in this prospectus.

HOW WE INTEND TO USE THE PROCEEDS FROM THIS OFFERING

Our net proceeds from the sale of the 1,500,000 shares of common stock offered by us are estimated to be \$ million at an assumed price to the public of \$ per share, after deducting the underwriting discount and estimated offering expenses payable by us (approximately \$ million).

Our principal purposes for engaging in this offering are to:

- increase our equity capital;
- increase the size of the public float for our common stock;
- facilitate future access by us to public equity markets; and
- allow for the orderly liquidation of the investments made by certain former preferred stockholders.

We expect to use the net proceeds from this offering for working capital and general corporate purposes. In addition, we may use a portion of the net proceeds to acquire complementary products, technologies or businesses. Pending use of the net proceeds of this offering, we intend to invest the net proceeds in interest-bearing, investment-grade securities. We will not receive any proceeds from the sale of the shares being sold by the selling stockholders. See "Principal and Selling Stockholders."

PRICE RANGE OF COMMON STOCK

Our common stock has been quoted on the Nasdaq National Market under the symbol "JNPR" since June 25, 1999. Prior to that time, there was no public market for the common stock. The following table sets forth, for the periods indicated, the high and low closing prices per share of the common stock as reported on the Nasdaq National Market.

1999	HIGH	LOW
Second Quarter (since June 25, 1999)	\$149.00	\$98.875
Third Quarter (through August 31, 1999)	\$227.00	\$125.00

On , 1999 the reported last sale price of the common stock on the Nasdaq National Market was \$. As of June 30, 1999 there were approximately 300 stockholders of record.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock. We currently expect to retain future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Our lease lines prohibit the payment of dividends without prior approval of the lessors.

CAPITALIZATION

The following table sets forth (1) our actual capitalization as of June 30, 1999, and (2) our capitalization as adjusted to give effect to the sale by us of 1,500,000 shares of common stock at the assumed price to the public of \$ per share (less the underwriting discount and estimated offering expenses payable by us). You should read this table in conjunction with our consolidated financial statements and the related notes included elsewhere in this prospectus.

	JUNE 30, 1999	
	ACTUAL	AS ADJUSTED
	(IN THOUSA	NDS, EXCEPT DATA)
Long-term obligations, net of current portion	\$ 2,521	\$ 2,521
Stockholders' equity: Convertible preferred stock, \$0.00001 par value, 10,000,000 shares authorized at June 30, 1999 Common stock, \$0.00001 par value, 200,000,000 shares authorized, 49,777,014 shares issued and outstanding		
(actual); 51,277,014 shares issued and outstanding (as adjusted)	*	*
Additional paid-in capital	172,106	
Deferred stock compensation	(4,472)	(4,472)
Accumulated deficit	(53,660)	(53,660)
Total stockholders' equity	113,974	
Total capitalization	\$116,495	\$

⁽¹⁾ Based on shares outstanding as of June 30, 1999. It excludes: (A) 8,181,683 shares of common stock reserved for issuance under our Amended 1996 Stock Plan, of which 5,007,695 were subject to outstanding options at a weighted average exercise price of \$10.59 per share and 3,173,988 shares available for future grants, (B) 240,410 shares of common stock issuable upon exercise of warrants at a weighted average exercise price of \$1.71 per share; and (C) 500,000 shares available for issuance under our 1999 Employee Stock Purchase Plan. See "Management -- Incentive Stock Plans," "Description of Capital Stock" and Notes 5, 6 and 10 to the Consolidated Financial Statements.

^{*} Less than \$1,000

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the net tangible book value per share of our common stock after this offering. We calculate net tangible book value per share by dividing the net tangible book value (total assets less tangible assets and total liabilities) by the number of outstanding shares of common stock.

Our net tangible book value at June 30, 1999, was \$114.0 million, or \$2.29 per share, based on 49,777,014 shares of our common stock outstanding.

After giving effect to the sale of the 1,500,000 shares of common stock by us at the public offering price of \$ per share (less the underwriting discount and estimated offering expenses payable by us), our net tangible book

value at June 30, 1999, would be \$ million, or \$ per share. This represents an immediate increase in the net tangible book value of \$ per share to existing stockholders and an immediate dilution of \$ per share to new investors, or approximately \$ of the public offering price of \$ per share.

The following table illustrates this per share dilution:

Assumed price to the public per share		\$ -	
Net tangible book value per share at June 30, 1999	\$2.29		
Increase per share attributable to new investors			
Net tangible book value per share after this offering		-	
Dilution per share to new investors		\$ -	
		====	==

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated financial data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included elsewhere in this prospectus. The consolidated statement of operations data set forth below for the period from February 2, 1996 (inception) to December 31, 1996, and for the fiscal years ended December 31, 1997 and 1998, and the consolidated balance sheet data as of December 31, 1997 and 1998 have been derived from the audited consolidated financial statements of Juniper Networks, Inc. included elsewhere in this prospectus, which have been audited by Ernst & Young LLP, Independent Auditors. The consolidated balance sheet data at December 31, 1996 are derived from unaudited consolidated financial statements that are not included in this prospectus. The consolidated statement of operations data for the sixmonth periods ended June 30, 1998 and 1999, and the consolidated balance sheet data as of June 30, 1999, are unaudited. In the opinion of management, all necessary adjustments (consisting only of normal recurring adjustments) have been included to present fairly the unaudited quarterly results when read in conjunction with the audited consolidated financial statements and the notes thereto appearing elsewhere in this prospectus. The historical results are not necessarily indicative of results to be expected for any future period. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	PERIOD FROM INCEPTION (FEBRUARY 2, 1996) TO DECEMBER 31,	YEAR E DECEMBE		SIX MO ENI JUNE	DED 30,
	1996	1997	1998	1998	1999
		THOUSANDS, E			
CONSOLIDATED STATEMENT OF OPERATIONS DATA:					
Net revenues Cost of revenues	\$ 	\$ 	\$ 3,807 4,416	\$ 219	\$ 27,600 14,393
Gross profit (loss)			(609)	(219)	13,207
Research and development	1,850	9,406	23,987	9,558	14,172
Sales and marketing	,	1,149	4,216	1,283	6,452
General and administrative	89	1,043	2,223	779	1,753
Amortization of deferred stock compensation			1,235	213	1,795
Total operating expenses	1,939	11,598	31,661	11,833	24,172
Operating loss	(1,939)	(11,598)	(32,270)	(12,052)	(10,965)
Interest income (expense), net	140	1,235	1,301	946	560
Loss before income taxes	(1,799) 	(10,363)	(30,969)	(11,106)	(10,405) 122
Net loss	\$(1,799) ======	\$(10,363)		\$(11,108)	
Basic and diluted net loss per share(1)	\$ (0.46)	\$ (1.21)			
	======	======			
Shares used in computing basic and diluted net loss per					
share(1)	3,958 =====	8,591 ======	12,957 ======	11,372	16,436 ======
Pro forma basic and diluted net loss per share			d (0.04)		å (0.06)
(unaudited)(1)			\$ (0.84)		\$ (0.26) ======
Shares used in computing pro forma basic and diluted net					
loss per share (unaudited)(1)			37,070		40,816
			======		======
CONSOLIDATED BALANCE SHEET DATA (AT PERIOD END):	+ 0 450	+ 45 000			t
Cash, cash equivalents and short-term investments	\$ 9,468	\$ 46,227	\$ 20,098		\$107,801
Working capital Total assets	9,315 10,388	44,691 50,210	14,432 36,671		99,358 143 131
Long-term obligations, less current portion	408	2,083	5,204		143,131 2,521
	9,728	46,048	17,065		113,974
Stockholders' equity	9,140	40,040	11,005		113,9/4

⁽¹⁾ See Note 1 of Notes to Consolidated Financial Statements for an explanation of the determination of the shares used to compute net loss per share.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with "Selected Consolidated Financial Data" and our consolidated financial statements and the related notes included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors including the risks discussed in "Risk Factors" and elsewhere in this prospectus.

OVERVIEW

We are a leading provider of Internet infrastructure solutions that enable Internet service providers and other telecommunications service providers, or, collectively, service providers, to meet the demands resulting from the rapid growth of the Internet. We deliver next generation Internet backbone routers that are specifically designed, or purpose-built, for service provider networks and offer our customers increased reliability, performance, scalability, interoperability and flexibility, and reduced complexity and cost compared to current alternatives. Our flagship product is the M40 Internet backbone router. The M40 combines the features of our JUNOS Internet Software, high performance ASIC-based packet forwarding technology and Internet optimized architecture into a purpose-built solution for service providers.

In September 1998, after extensive field testing of our JUNOS Internet Software, we began shipping our first product, the M40 Internet backbone router, with volume shipments beginning in October 1998. We currently sell through our direct sales force to major service providers in North America. In addition, we distribute through value added resellers system integrators and resellers to smaller customers in North America and to international customers. Distribution and support is also provided by our strategic original equipment manufacturer relationship with Ericsson.

From our inception in February 1996 through September 1998, our operating activities were primarily devoted to increasing our research and development capabilities, designing our ASICs, developing our software, developing and testing the M40 and developing other products. We also staffed our administrative, marketing and sales organizations and implemented strategic relationships. Since our inception, we have incurred significant losses, and as of June 30, 1999, we had an accumulated deficit of \$53.7 million. We have not achieved profitability on a quarterly or annual basis. We expect to incur significant sales and marketing, research and development and general and administrative expenses and, as a result, we will need to generate significantly higher revenues to achieve and maintain profitability.

Our revenues currently are derived from sales of one product, the M40. While we are developing and plan to introduce future products, there can be no assurance that we will be successful in these efforts. To date, we have generated a substantial portion of our revenues from a limited number of customers, with two customers accounting for 62% of our net revenues in the six months ended June 30, 1999. While we are seeking to diversify our customer base, there can be no assurance that these efforts will be successful.

To date, most of our direct sales have been in North America, and our international sales have been through our strategic original equipment manufacturer relationship with Ericsson and other distributors. However, we have recently launched sales and marketing efforts internationally, initially focused on Europe and Asia.

We expect that a significant portion of our future revenues will continue to come from sales of the M40 to a small number of customers. We have focused our initial sales and marketing efforts primarily on the world's leading service providers. We expect to

receive a large portion of our revenues from these initial customers until we can sufficiently penetrate additional accounts.

Because the market for Internet backbone routers is new and evolving, the volume and timing of orders are difficult to predict. A customer's decision to purchase the M40 typically involves a significant commitment of their resources and a lengthy evaluation and product qualification process. This initial evaluation and product qualification process typically takes several months and includes:

		1	
-	technical	eva	liiation:

- integration;
- testing;
- network planning; and
- implementation into the network.

Even after making the decision to purchase the M40, our customers tend to deploy the M40 slowly and deliberately. Timing of deployment can vary widely and depends on the skill set of the customer, the size of the network deployment, the complexity of the customer's network environment and the degree of hardware and software configuration necessary to deploy the M40. Customers with large networks usually expand their networks in large increments on a periodic basis. Accordingly, we expect to receive purchase orders for significant dollar amounts on an irregular basis. Because of our limited operating history, we cannot predict these sales and development cycles. Long sales and implementation cycles for the M40, as well as the expectation that customers will tend to sporadically place large orders with short lead times, may cause revenues and operating results to vary significantly and unexpectedly from quarter to quarter.

We recognize product revenue at the time of shipment, unless we have future obligations for installation or have to obtain customer acceptance, in which case revenue is deferred until these obligations are met. Revenue from service obligations is deferred and recognized on a straight-line basis over the contractual period. Amounts billed in excess of revenue recognized are included as deferred revenue in the accompanying consolidated balance sheets. At June 30, 1999, a total of \$12.8 million of revenue was deferred. It is currently expected that this deferred revenue will be recognized in 1999. The amount of estimated product returns is provided for in the period of the sale. We provide a reserve for warranty returns based on our warranty history. Historically, selling prices in the Internet infrastructure equipment market have been relatively stable. However, as competitors launch new products, this pricing trend may change.

Our gross margins will primarily be affected by the following factors:

- demand for our products and services;
- new product introductions both by us and by our competitors;
- changes in our pricing policies and those of our competitors;
- the mix of interfaces sold;
- the mix of products and services sold;
- the mix of sales channels through which our products and services are sold;
- the mix of domestic and international sales; and
- the volume manufacturing pricing we are able to attain from our partner for outsourced manufacturing.

We have outsourced our manufacturing, our repair operations and the majority of our supply chain management operations. Accordingly, a significant portion of our cost of revenues consists of payments to Solectron, our contract manufacturer. Solectron manufactures our products using quality assurance programs and standards which we established. Manufacturing engineering and documentation control are conducted at our facility in Mountain View, California.

Research and development expenses consist primarily of salaries and related personnel costs, fees paid to consultants and outside service providers, non-recurring engineering charges and prototype costs related to the design, development, testing and enhancement of our ASICs and software and system development. We expense our research and development costs as they are incurred. Several components of our research and development effort require significant expenditures, the timing of which can cause significant quarterly variability in our expenses. The number of prototypes required to build and test a complex product such as the M40 is large and this building and testing process occurs over a short period of time. Our ASIC development requires an upfront payment of non-recurring engineering charges, regardless of whether the integrated circuit works, and a per unit cost payable as ASICs are purchased. With several large ASICs in our architecture, we will incur large non-recurring engineering and prototype expenses with every enhancement of the M40 and any new product development. We are devoting substantial resources to the continued development of new products. We believe that research and development is critical to our strategic product development objectives and that to leverage our leading technology and meet the changing requirements of our customers, we will need to fund investments in several development projects in parallel. As a result, we expect our research and development expenses to increase in absolute dollars in the future.

Selling and marketing expenses consist primarily of salaries, commissions and related expenses for personnel engaged in marketing, sales and customer engineering support functions, as well as costs associated with promotional and other marketing expenses. We intend to expand our direct and indirect sales operations substantially, both domestically and internationally, in order to increase market awareness of our products. We expect that sales and marketing expenses will increase substantially in absolute dollars over the next year as we hire additional sales and marketing personnel, initiate additional marketing programs to support the M40 and establish sales offices in additional domestic and international locations. In addition, we believe our future success is dependent upon establishing successful relationships with a variety of distribution partners. To date, we have entered into agreements with only a small number of distribution partners. To be successful, we must reach agreement with additional distribution partners in several countries. Similarly, the complexity of our Internet backbone routers and the difficulty of installing them require highly trained customer service and support personnel. We expect to significantly expand our customer service and support organization to meet these requirements. We believe that continued investment in sales and marketing is critical to our success and expect these expenses to increase in absolute dollars in the future.

General and administrative expenses consist primarily of salaries and related expenses for executive, finance, accounting, facilities, human resources personnel, recruiting expenses, professional fees and other corporate expenses. We expect general and administrative expenses to increase in absolute dollars as we add personnel and incur additional costs related to the growth of our business and our operation as a public company.

In connection with the grant of certain stock options to employees during 1998 and the three months ended March 31, 1999, we recorded deferred compensation of \$6.4 million and \$1.1 million, respectively, representing the difference between the deemed value of the common stock for accounting purposes and the exercise price of these options at the date of grant. Deferred compensation is presented as a reduction of stockholders' equity and is amortized over the vesting period of the applicable options. We expensed \$1.2 million of deferred compensation during the year ended December 31, 1998, and \$1.8 million of deferred compensation during the six months ended June 30, 1999. This compensation expense relates to stock options awarded to individuals in all operating expense

categories. See Note 6 of our consolidated financial statements.

As of December 31, 1998, we had \$34.0 million of federal net operating loss carryforwards and \$33.0 million of state net operating loss carryforwards for tax reporting purposes available to offset future taxable income. Such net operating loss carryforwards expire at various dates beginning in 2004 to the extent that they are not utilized. We have not recognized any benefit from the future use of loss carryforwards for these periods, or for any other periods, since inception. Management's evaluation of all the available evidence in assessing realizability of the tax benefits of such loss carryforwards indicates that the underlying assumptions of future profitable operations contain risks that do not provide sufficient assurance to recognize the tax benefits currently.

RESULTS OF OPERATIONS

NET REVENUES

The quarter ended December 31, 1998, was our first quarter of revenue. Net revenues were \$3.8 million in the year ended December 31, 1998, and \$27.6 million for the six months ended June 30, 1999 (none for the corresponding six month period of the preceding year). Two customers accounted for 100% of the net revenues in the three months ended December 31, 1998, and two customers accounted for 62% of the net revenues in the six months ended June 30, 1999.

COST OF REVENUES

Cost of revenues for the year ended December 31, 1998, were \$4.4 million and for the six months ended June 30, 1999, were \$14.4 million (\$219,000 for the corresponding six month period of the preceding year). Cost of revenues includes the cost of our manufacturing overhead and customer service and support organizations.

RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses were \$24.0 million in 1998, an increase of \$14.6 million or 155% over 1997, and were \$14.2 million in the six months ended June 30, 1999, an increase of \$4.6 million or 48% over the comparable period of 1998. The increase was due primarily to increased costs associated with a significant increase in personnel, which accounted for approximately 30% of the increase in 1998 over 1997 and 70% of the increase in the six months ended June 30, 1999 over the comparable period in 1998. An increase in non-recurring engineering costs accounted for approximately 10% of the increase in 1998 over 1997 and a negligible portion of the increase in the six months ended June 30, 1999 over the comparable period in 1998 over 1997 was due also to an increase in prototype expenses, which accounted for approximately 40% of the increase; however, the increase in research and development expenses in the six months ended June 30, 1999 over the comparable period in 1998 was partially offset by a decrease of approximately 30% in prototype expenses. The primary purposes of the increase in research and development expenses were to support the completion, bring-up, alpha test (the early tests of the product in labs) and beta test (the tests conducted at customer premises just prior to shipping the product when product is of sufficient quality to run in production networks) phases of the product development and to complete the M40 product as well as increased research and development expenses will increase in absolute dollars in future periods.

SALES AND MARKETING EXPENSES

Sales and marketing expenses were \$4.2 million in 1998, an increase of \$3.1 million or 267% over 1997, and were \$6.5 million in the six months ended June 30, 1999, an increase of \$5.2 million or 403%

over the comparable period of 1998. The increase was due primarily to a significant increase in the number of sales and marketing personnel. The costs associated with such increase in personnel accounted for approximately 70% of the increase in 1998 over 1997 and 55% of the increase in the six months ended June 30, 1999 over the comparable period in 1998.

GENERAL AND ADMINISTRATIVE EXPENSES

General and administrative expenses totaled \$2.2 million in 1998, an increase of \$1.2 million or 113% over 1997, and \$1.8 million in the six months ended June 30, 1999, an increase of \$1.0 million or 125% over the comparable period of 1998. The increase was due primarily to the increased costs associated with an increase in the number of general and administrative personnel and with increased recruiting, accounting and consulting activities, each of which accounted for approximately 35% of the increase in general and administrative expenses in 1998 over 1997 and 25% and 50%, respectively, of the increase in the six months ended June 30, 1999 over the comparable period in 1998. The primary purpose of the increase was to support our growing business activities.

INTEREST INCOME, NET

Net interest income includes income on cash investments partially offset by expenses related to financing obligations. Net interest income was \$1.3 million for the year ended December 31, 1998 and \$560,000 in the six months ended June 30, 1999. This compares with net interest income of \$1.2 million for the year ended December 31, 1997 and \$946,000 in the six months ended June 30, 1998. Most of the net interest income decrease for the six months ended June 30, 1999 compared to the six months ended June 30, 1998 was due to less interest income as average cash balances from the proceeds of issuances of preferred and common stock were smaller in the first quarter of the 1999 period as compared to the first quarter of the 1998 period.

PROVISION FOR INCOME TAXES

The Company has recorded a tax provision of \$122,000 for the six month period ending June 30, 1999. The provision for income taxes consists primarily of foreign taxes.

OUARTERLY RESULTS OF OPERATIONS

The following table presents our operating results for the quarters ended December 31, 1998, March 31, 1999 and June 30, 1999, which are the only quarters for which we have recognized revenue. The information for each of these quarters is unaudited and has been prepared on the same basis as the audited financial statements appearing elsewhere in this prospectus. In the opinion of management, all necessary adjustments consisting only of normal recurring adjustments, have been included to present fairly the unaudited quarterly results when read in conjunction with our audited consolidated financial statements and the related notes appearing elsewhere in this prospectus. These operating results are not necessarily indicative of the results of any future period.

	QUARTER ENDED			
	DECEMBER 31,	MARCH 31, 1999	JUNE 30,	
		THOUSANDS)		
CONSOLIDATED STATEMENT OF OPERATIONS DATA:				
Net revenues	\$ 3,807	\$10,044	\$17,556	
Cost of revenues	3,815	6,347		
Gross profit (loss)	(8)	3,697		
Operating expenses:				
Research and development				
Sales and marketing	1,718	2,603	3,849	
General and administrative	882	776	977	
Amortization of deferred stock compensation		904		
Total operating expenses	9,393		13,708	
Operating loss		(6,767)		
taxes, net	117	92	346	
Net loss	\$(9,284) ======		\$(3,852)	

Our revenues and operating results will vary significantly from quarter to quarter due to a number of factors, many of which are outside of our control and any of which may cause our stock price to fluctuate. The primary factors that may affect us include the following:

- demand for the M40;
- the timing of sales of the M40;
- the timing of recognizing revenue and deferred revenue;
- new product introductions by our competitors;
- changes in our pricing policies or the pricing policies of our competitors;
- our ability to develop, introduce and ship new products and product enhancements that meet customer requirements in a timely manner;
- our ability to obtain sufficient supplies of sole or limited source components, including ASICs and power supplies for the M40;
- increases in the prices of the components we purchase;
- our ability to attain and maintain production volumes and quality levels for the M40;
- decisions by end-users to reallocate their information resources to other purposes, including year 2000 preparedness;
- Internet growth and demand for Internet infrastructure;

- prototype expenses;
- costs related to acquisitions of technology or businesses; and
- general economic conditions as well as those specific to the Internet and related industries.

In addition, we are dependent on decisions by customers to build their Internet infrastructure, which decisions are in turn dependent upon the success and expected demand for the services offered by those customers. Furthermore, the long sales and implementation cycles for the M40, as well as the degree to which customers will sporadically place large orders with short lead times, may cause revenues and operating results to vary significantly from quarter to quarter.

We also expect to experience seasonality in our operating results. Our customers may accept shipments of products during the fourth quarter of this year and the first quarter of next year; however, due to the uncertainties of the year 2000 problem, they may not integrate the products into their networks until a later time which could adversely affect our revenues in those quarters. In addition, we expect the growth rate in our sales in the first quarter to be adversely affected due to our customers' budgeting cycles.

We plan to increase significantly our operating expenses to fund greater levels of research and development, expand our sales and marketing operations, broaden our customer support capabilities and develop new distribution channels. We also plan to expand our general and administrative functions to address the increased reporting and other administrative demands, which will result from being a publicly traded company and the increasing size of our business. Our operating expenses are largely based on anticipated revenue trends, and a high percentage of our expenses are and will continue to be fixed in the short term. As a result, a delay in generating or recognizing revenue for the reasons set forth above or for any other reason could cause significant variations in our operating results from quarter to quarter and could result in substantial operating losses.

Due to the foregoing factors, we believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance. It is likely that in some future quarters, our operating results may be below the expectations of public market analysts and investors. In this event, the price of our common stock may fall.

LIQUIDITY AND CAPITAL RESOURCES

Since inception, we have financed our operations primarily through private sales of approximately \$90.8 million of convertible preferred stock and our recent initial public offering which raised approximately \$65.2 million, net of issuance costs, as well as through capital leases for computers, office equipment, software and furniture.

We used \$24.8 million in cash for operations in 1998, an increase of \$16.2 million from the \$8.6 million used in 1997. The increase was primarily due to an increase in our net loss from \$10.4 million in 1997 to \$31.0 million in 1998, partially offset by increased non-cash charges in 1998. We used \$3.0 million in cash for operations in the six months ended June 30, 1999, as a result of our net loss of \$10.5 million, partially offset by an increase in deferred revenue and non-cash charges.

We generated \$9.3 million in cash from investing activities in 1998 and used \$13.0 million in cash from investing activities in 1997. We generated \$48.5 million in cash in 1997, \$5.2 million in cash in 1998 and \$101.9 million in cash in the six months ended June 30, 1999, from financing activities, primarily private sales of convertible preferred stock and our recent initial public offering. We have used leases to partially finance capital purchases. In addition, we had \$7.4 million in capitalized lease obligations outstanding at December 31, 1998, and \$3.7 million at June 30, 1999.

At June 30, 1999, cash, cash equivalents, short-term and long-term

investments totaled \$115.3 million. The increase from \$20.1 million at December 31, 1998 was due to the receipt of \$33.9 million from the sale of preferred stock in March 1999 and the receipt of \$65.2 million, net of issuance costs, from the recent initial public offering in June 1999.

Our capital requirements depend on numerous factors, including:

- market acceptance of our products;
- the resources we devote to developing, marketing, selling and supporting our products;
- the timing and extent of establishing international operations; and
- other factors.

We expect to devote substantial capital resources to continue our research and development efforts, to hire and expand our sales, support, marketing and product development organizations, to expand marketing programs, to establish additional facilities worldwide and for other general corporate activities. Although we believe that our current cash balances will be sufficient to fund our operations for at least the next 12 months, there can be no assurance that we will not require additional financing within this time frame or that such additional funding, if needed, will be available on terms acceptable to us or at all.

At June 30, 1999, accounts receivable had increased to \$17.3 million as compared to \$8.1 million at December 31, 1998 and deferred revenue had increased to \$12.8 million, as compared to \$5.6 million at December 31, 1998, due to the increase in revenues.

Our customers are billed at the time that the product is shipped, with payment terms generally of 30 days. We have deferred the revenue recognition on shipments to new customers until the point at which the installation obligations are satisfied. The typical installation process, which involves customer and Juniper Networks personnel, historically has taken approximately 90 days. For sales to existing customers, we recognize revenue upon shipment as these customers have already concluded the product testing period. Customers historically either have paid us prior to the completion of the installation process. The accounts receivable balance as of December 31, 1998 was collected prior to March 31, 1999.

YEAR 2000 COMPLIANCE

IMPACT OF THE YEAR 2000 COMPUTER PROBLEM. The year 2000 computer problem refers to the potential for system and processing failures of date-related data as a result of computer-controlled systems using two digits rather than four to define the applicable year. For example, computer programs that have time-sensitive software may recognize a date represented as "00" as the year 1900 rather than the year 2000. This could result in a system failure or miscalculations causing disruptions of operations, including among other things, a temporary inability to process transactions, send invoices, or engage in similar normal business activities.

STATE OF READINESS OF OUR PRODUCTS. We have designed the M40 for use in the year 2000 and beyond and believe it is year 2000 compliant. However, our products are generally integrated into larger networks involving sophisticated hardware and software products supplied by other vendors. Each of our customers' networks involves different combinations of third party products. We cannot evaluate whether all of their products are year 2000 compliant. We may face claims based on year 2000 problems in other companies' products or based on issues arising from the integration of multiple products within the overall network. Although no such claims have been made, we may in the future be required to defend our products in legal proceedings which could be expensive regardless of the merits of such claims.

STATE OF READINESS OF OUR INTERNAL SYSTEMS. Our business may be affected by year 2000 issues related to non-compliant internal systems developed by us or by third-

party vendors. We have received assurances that all material systems from third-party vendors in use by us are year 2000 compliant. We are not currently aware of any year 2000 problem relating to any of our material internal systems. We are in the process of testing all such systems for year 2000 compliance and plan to complete such testing before September 30, 1999. We do not believe that we have any significant systems that contain embedded chips that are not year 2000 compliant.

Our internal operations and business are also dependent upon the computer-controlled systems of third parties such as suppliers, customers and service providers. We believe that absent a systemic failure outside our control, such as a prolonged loss of electrical or telephone service, year 2000 problems at third parties such as suppliers, customers and service providers will not have a material impact on our operations.

If our suppliers, vendors, major distributors, partners, customers and service providers fail to correct their year 2000 problems, these failures could result in an interruption in, or a failure of, our normal business activities or operations. If a year 2000 problem occurs, it may be difficult to determine which party's products have caused the problem. These failures could interrupt our operations and damage our relationships with our customers. Due to the general uncertainty inherent in the year 2000 problem resulting from the readiness of third-party suppliers and vendors, we are unable to determine at this time whether year 2000 failures could harm our business and our financial results.

Our customers' purchasing plans could be affected by year 2000 issues if they need to expend significant resources to fix their existing systems to become year 2000 compliant. This situation may reduce funds available to purchase our products. In addition, some customers may wait to purchase our products until after the year 2000, which may reduce our revenue.

COST. Based on our assessment to date, we anticipate that costs associated with testing and remediating our internal systems will be approximately \$200,000.

RISKS. Failure of our internal systems to be year 2000 compliant could temporarily prevent us from processing orders, issuing invoices and developing products and could require us to devote significant resources to correcting such problems. Due to the general uncertainty inherent in the year 2000 computer problem, resulting from the uncertainty of the year 2000 readiness of third-party suppliers and vendors, we are unable to determine at this time whether the consequences of year 2000 failures will have a material impact on our business, results of operations or financial condition.

RECENT ACCOUNTING PRONOUNCEMENTS

In March 1998, the American Institute of Certified Public Accountants, or AICPA, issued Statement of Position, or SOP, No. 98-1, Accounting for the Costs of Computer Software Developed or Obtained for Internal Use. SOP No. 98-1 requires entities to capitalize certain costs related to internal-use software once certain criteria have been met. We expect that the adoption of SOP No. 98-1 will not have a material impact on our financial position or results of operations. We adopted SOP No. 98-1 effective January 1, 1999.

In April 1998, the AICPA issued SOP No. 98-5, Reporting on the Costs of Start-Up Activities. SOP No. 98-5 requires that all start up costs related to new operations must be expensed as incurred. In addition, all start-up costs that were capitalized in the past must be written off when SOP No. 98-5 is adopted. We expect that the adoption of SOP No. 98-5 will not have a material impact on our financial position or results of operations. We adopted SOP No. 98-5 effective January 1, 1999.

In June 1998, the Financial Accounting Standards Board issued FAS No. 133, Accounting for Derivative Instruments and Hedging Activities. FAS No. 133 establishes methods for derivative financial instruments and hedging activities related to those instruments, as well as other hedging

activities. Because we do not currently hold any derivative instruments and do not engage in hedging activities, we expect that the adoption of FAS No. 133 will not have a material impact on our financial position or results of operations.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET INTEREST RATE SENSITIVITY

The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities that we have invested in may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the principal amount of our investment will probably decline. To minimize this risk, we maintain our portfolio of cash equivalents and short and long term investments in a variety of securities, including money market funds, government and non-government debt securities, commercial paper and municipal bonds. In general, money market funds are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate. In addition, we invest in relatively short-term securities. As of December 31, 1998, all of our investments mature in less than one year. See Note 2 to the Consolidated Financial Statements.

The following table presents the amounts of cash equivalents and investments that are subject to market risk by range of expected maturity and weighted average interest rates as of June 30, 1999 and December 31, 1998. This table does not include money market funds because those funds are not subject to market risk.

	MATURING IN THREE MONTHS		TOTAL
AT JUNE 30, 1999	(DOLLA	R AMOUNTS IN THOUSANDS)	
Cash equivalents	5.23% \$ 8,531 5.03% \$15,101	\$ % \$14,342 5.62% \$14,342 5.62%	5.40%
	MATURING IN THREE MONTHS		TOTAL
AT DECEMBER 31, 1998 Cash equivalents Weighted average interest rate	,	R AMOUNTS IN THOUSANDS) \$%	\$16,520 5.33%

EXCHANGE RATE SENSITIVITY

We operate primarily in the United States, and all sales to date have been made in US dollars. Accordingly, we have had no material exposure to foreign currency rate fluctuations.

BUSINESS

OVERVIEW

We are a leading provider of Internet infrastructure solutions that enable Internet service providers and other telecommunications service providers, to meet the demands resulting from the rapid growth of the Internet. We deliver next generation Internet backbone routers that are specifically designed, or purpose-built, for service provider networks and offer our customers increased reliability, performance, scalability, interoperability and flexibility, and reduced complexity and cost compared to current alternatives. Our flagship product is the M40 Internet backbone router. The M40 combines the features of our JUNOS Internet Software, high performance ASIC-based packet forwarding technology and Internet-optimized architecture into a purpose-built solution for service providers. Unlike conventional routers, which were originally developed for enterprise applications and are increasingly inadequate for service provider use in public networks, our Internet backbone routers are specifically designed to accommodate the size and scope of the Internet.

We believe that the Internet will continue to grow at significant rates and will evolve into the next generation public network, superseding and expanding upon many of the functions provided by the traditional telephone network. This trend will drive the need for new Internet infrastructure equipment that can deliver the high levels of reliability and scalability needed in a public network. We believe we have developed the first commercially available Internet backbone routing platform specifically designed and built to meet these requirements. Ryan Hankin Kent, an industry research firm, estimates that the market for Internet backbone routers was \$169 million in 1998 and expects that market to increase to approximately \$5.5 billion in 2003.

We sell our Internet backbone routers primarily through our direct sales force, value-added resellers, an original equipment manufacturer and other country specific distributors. Our M40 Internet backbone router is currently used by several of the world's leading service providers, including UUNet/MCIWorldCom, Cable & Wireless, AT&T/IBM Global Services, Frontier GlobalCenter and Verio.

INDUSTRY BACKGROUND

The Internet has evolved from an academic research project into a network of hundreds of separately administered, public and private networks interconnected using Internet Protocol (IP). IP traffic is growing exponentially, driven by increasing numbers of new users, connected devices and Internet transactions. The result of the widespread use of IP is a ubiquitous network that today carries a large and growing amount of data traffic enabling millions of users to share information and conduct electronic commerce. International Data Corporation, an industry research firm, forecasts continued dramatic growth worldwide in the Internet and Internet traffic:

- World Wide Web users will grow from approximately 142 million in 1998 to approximately 502 million in 2002;
- the number of computers and other devices accessing the World Wide Web will grow from approximately 78 million in 1997 to approximately 515 million by 2002; and
- commerce revenues on the Internet will grow from approximately \$32 billion at the end of 1998 to approximately \$426 billion by the end of 2002.

The importance of IP continues to increase as the number of users, connected devices and transactions over the Internet grows. This growth highlights the potential for the Internet to replace the traditional telephone network and the pervasive public network.

The rapid adoption of the Internet and the tremendous growth of IP traffic have prompted service providers to construct large

scale data networks. These networks are

being optimized to transport data traffic as compared to traditional telephone networks, which were optimized to transport voice traffic. The architecture of these next generation networks is being driven by two key technologies: packet/cell switching and optical networking.

ADVANTAGES OF PACKET/CELL SWITCHING. Packet/cell switching technology, which divides data traffic into distinct units called packets or cells and routes each packet or cell independently, provides superior use of available network capacity compared to traditional circuit switching technology. In a circuit switched network, each data stream, such as a voice telephone call between two points, is provided with a dedicated channel, or circuit, for the duration of the telephone call. This approach leads to inefficient use of network resources because a channel is fully dedicated to each transaction, whether or not data is actually flowing at any given moment. As a result, a circuit switched architecture is highly inefficient for Internet applications which tend to create large bursts of data traffic followed by long periods of silence. Packet/cell switching architectures enable greater utilization out of a fixed capacity circuit by combining traffic that has different capacity demands of the circuit at different times. Packet/cell switches more efficiently fill the available network bandwidth with packets of data from many users, thereby reducing the wasted bandwidth due to silence from any one particular user. The use of packet/cell switching is driving the architecture of the Internet to be fundamentally different from traditional circuit switched voice based networks. In packet/cell switched networks, IP has emerged as the de facto standard for providing services to end users. Primary packet/cell switching products include frame relay switches, ATM switches and routers.

RAPID ADVANCES IN OPTICAL NETWORKING. Optical networking technology uses pulses of light, rather than pulses of electricity, to transmit data in a network, and uses fiber optic connections instead of wires. Optical networking can be used to transmit much more information over a given connection than electrical signals can convey. Optical networking advances, such as dense wavelength division multiplexing, or DWDM, which allows transmission of several frequencies of light over one strand of optical fiber, have enabled still higher data transmission rates and improved efficiency of bandwidth utilization. Currently available DWDM technology enables the transmission of up to 128 frequencies which allows a service provider to multiply the transmission capacity of a fiber optic network by a factor of up to 128.

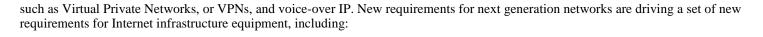
PACKET/CELL TECHNOLOGIES HAVE NOT KEPT UP WITH OPTICAL TECHNOLOGIES. Many service providers are installing DWDM equipment and are increasingly focusing on combining IP and optical networking technologies. However, traditional packet switching equipment is not capable of forwarding packets at rates sufficient to keep pace with optical transmission speeds. As affordable fiber optic transmission capacity becomes widely available, the performance and complexity of current packet/cell switching architectures is increasingly constraining the growth of the Internet.

The intersection of traditional packet/cell switching and fiber optic technology is demonstrated by the following diagram:

[DIAGRAM]

THE NEW REQUIREMENTS OF THE INTERNET

The reliability and performance of current Internet infrastructure equipment have become critical issues for service providers as they continue to support dramatic growth in IP traffic and increasingly seek to offer new revenue generating, mission-critical services,



- high reliability;
- high performance;
- high performance under stressful conditions;
- scalability;
- interoperability;
- reduced complexity; and
- cost effectiveness.

HIGH RELIABILITY. As businesses and consumers increasingly rely on the Internet for mission-critical applications, high network reliability becomes essential. Service providers are increasingly expected to provide a similar degree of reliability on the Internet that users have become accustomed to on the traditional telephone network. The "five nines" (99.999%) reliability standard of the traditional telephone network is becoming the target to which suppliers of next-generation Internet platforms are being compared. As service providers begin to bundle voice and data on their networks, this high degree of reliability is becoming even more critical.

HIGH PERFORMANCE. To handle the rapid growth in IP traffic, today's networks increasingly require routers that can operate at interface speeds as high as 2.5 billion bits of information per second (Gbps), and in the near future, 10 Gbps. The processing of data packets at these high speeds requires sophisticated forwarding technology to inspect each packet and assign it to a destination based on priority, data type and other considerations. Since a large number of IP packets, many of which perform critical administrative functions, are small in size, high performance Internet routers need to achieve their specified transmission speeds even for small packet sizes. Since smaller packets increase packet processing demands, routing large numbers of smaller packets tends to be more resource intensive than routing of larger packets. Routers based on general-purpose microprocessors traditionally are unable to forward small packets at maximum rates, and, as a consequence, fail to operate at wire speed, which results in data loss, packet retransmission and network instability. A wire speed router, which achieves its specified transmission rate for any type of traffic passing through it, can accomplish this task. Unlike the enterprise environment, where network capacity is relatively inexpensive and service quality requirements are not as demanding, the additional capacity and related costs of network bandwidth and low service levels resulting from retransmission of dropped packets are increasingly unacceptable to service providers. Thus, provisioning of mission-critical services increasingly requires the high performance enabled by wire speed processing.

HIGH PERFORMANCE UNDER STRESSFUL CONDITIONS. In a large and complex network, individual components inevitably fail. However, the failure of an individual device or link must not compromise the network as a whole. In a typical network, when a failure occurs, the network loses some degree of capacity and, in turn, a greater load falls on the remaining network routers, which must provide alternate routes. Routers must quickly adjust to the new state of the network to maintain packet forwarding rates and avoid dropping significant numbers of packets when active routes are lost or when large numbers of routes change. Routing protocols are used to accomplish this convergence, a process that places even greater stress on the router. Given the complexity of Internet infrastructure, particularly compared to enterprise networks, the convergence process is far more complex and places a far greater load on the routing software, thereby requiring a much more sophisticated device.

SCALABILITY. Due to the rapid growth in Internet users and IP traffic, service providers must continuously expand their networks, both in terms of increased numbers of access points of presence (PoPs), and also greater capacity per PoP. To facilitate this expansion process, Internet infrastructure equipment

must be highly scalable. Next generation routers therefore need to be upgradeable and configurable to function within constantly changing networks while incurring minimal downtime.

INTEROPERABILITY. Service providers do not have the time or inclination to change their existing networks to favor introduction of new products; rather, new products must be compatible with the existing environment. Given the open and inter-connected nature of the Internet, the complexity of running an Internet backbone network requires a service provider to control and police relations with other service providers. For example, service providers must carefully control what traffic is accepted under what conditions from other providers. Major service providers connect their respective networks via peering arrangements, in which service providers agree to exchange traffic with one another. These arrangements are prone to abuse, such as the illicit use by one service provider of another service provider's backbone to carry excess traffic. Service provider relationships are controlled by a set of rules called policies, implemented through a data protocol called Border Gateway Protocol 4, or BGP4. The software in each router must offer 100% compatibility with all aspects of BGP4, as well as 100% compatibility with the interior protocols and standards used within each service provider's backbone network. The compatibility level must be maintained despite changes to software equipment configuration and network architecture and upgrades to the various protocol standards. Thus, routing software must be flexible and quickly upgradeable to support any necessary revisions. This level of compatibility, in turn, cannot impact the performance, scalability or reliability of the equipment. Attaining this sophisticated level of interoperability is highly challenging and requires significant testing to ensure compatibility.

REDUCED COMPLEXITY. Today's Internet architectures are highly complex. Since traditional routers have not fully met service providers' needs, many service providers have tried to improve Internet backbone performance by adding additional network devices such as ATM switches in the core of the network. As a result, service providers have built networks with ATM switches surrounded by an overlay network of lower capacity routers. These different layers of equipment lead to higher capital costs and the need to manage distinct network elements. ATM switches are also poorly suited to carrying IP traffic, which results in inefficient use of network bandwidth. Moreover, this network design can cause unpredictable router behavior during periods of stress because the routers are not aware of the ATM backbone infrastructure and thus cannot quickly converge if there is a partial network outage.

This type of layered backbone network with a complex patchwork of products based on different technologies is represented below:

[DIAGRAM]

COST EFFECTIVENESS. Exponential growth in IP traffic and intense price competition in the telecommunications market is increasingly requiring service providers to seek solutions that significantly reduce the capital expenditures required to build and operate their networks. In addition to the basic cost of equipment such as routers, service providers incur substantial ancillary costs in terms of space required to deploy the equipment, power consumption and on-going operations and maintenance. Service providers therefore want to deploy dense and varied equipment configurations in limited amounts of rack and floor space. Currently, service providers are moving from OC-3 (155 million bits per second, or Mbps) and OC-12 (622 Mbps) speed networks at the core to higher capacity OC-12 and OC-48 (2.5 gigabits per second, or Gbps) speed networks. In turn, the connections from each PoP to the core are evolving from 100 Mbps and OC-3 speeds to gigabit and OC-12 transmission rates. Therefore, in order to continue to scale their networks toward higher data speeds in a cost effective manner, service providers need the ability to mix and match easily many different speed connections at appropriate densities, without significantly increasing the consumption of space or power.

There is a clear need for next generation routers that can support high speeds and offer new IP-based services. Network operators are eagerly seeking new solutions that increase the level of scalability and reliability within their networks and reduce the cost and complexity of their architectures.

THE JUNIPER NETWORKS SOLUTION

We develop, market and sell what we believe is the first commercially available purpose-built Internet backbone router optimized for the specific high performance needs of service providers. Our flagship product, the M40 Internet backbone router, combines the features of our JUNOS Internet Software, high-performance ASIC-based packet forwarding technology and Internet-optimized architecture.

JUNOS INTERNET SOFTWARE. Our Internet software, called JUNOS, is one of our key competitive differentiators. JUNOS is designed to meet the IP network routing, operations and control requirements of the world's largest service providers and is an integral component of the M40 system architecture. The ability of JUNOS to manage the complex network sharing relationships among service providers allows the M40 to be placed at critical points in the core of a service provider's network. The JUNOS Internet Software allows the M40 to have widespread network placement due to its interoperability with Cisco's Internetwork Operating System, or IOS, currently the most broadly deployed routing operating system. The ability to coexist has enabled the M40 to achieve successful deployment where other products in the past have failed.

Unconstrained by legacy routing software, we developed JUNOS using a modular design, in which distinct functions are implemented as separate modules with well defined interfaces and interactions, simplifying troubleshooting and maintenance. JUNOS operates in protected memory mode. These features keep functionality distinct, and minimize the impact of any failure that may occur to the specific software application in which the failure occurs. Also, we believe JUNOS' software modularity will enable the continuous upgrade of new enhanced capabilities, while protecting reliability and compatibility with existing networks. The design and development of the JUNOS Internet Software has been possible due to the significant Internet engineering expertise of our development team. Our expert engineers have authored or coauthored 22 Requests for Comments, which are documents by industry experts that define major standards for Internet protocols.

HIGH PERFORMANCE ASIC-BASED PACKET FORWARDING TECHNOLOGY. The M40 Internet backbone router contains five major integrated circuits that we designed and built using the most advanced ASIC technology. These ASICs contain over five million gates in total, with three of the designs each having a larger number of transistors than the Intel Pentium II microprocessor. The result is a system that is substantially faster than today's general purpose microprocessor based routers in its ability to process and forward IP packets, allowing the M40 to deliver high performance at wire speed. The ability to enhance and implement large scale ASICs will be a long-term differentiator for us, particularly as the sophistication required to forward traffic across higher speed networks increases. We expect to leverage our existing ASIC technology in future products and continue to capitalize on our advanced ASIC design capabilities.

INTERNET OPTIMIZED ARCHITECTURE. As a purpose-built Internet backbone router, the M40 employs an architecture designed exclusively for the Internet. The M40 system architecture provides a clean separation between the routing and packet-forwarding functions. Separating these two functions enables us to develop independently a full-featured routing protocol and traffic engineering functionality through our JUNOS Internet Software and wire speed packet forwarding performance through high performance ASICs. Furthermore, with the routing and forwarding functions segregated, the M40 does not sacrifice performance, even when there is a failure in the network. When a failure occurs, JUNOS detects the failure and is able to quickly converge to the new state of the network while the ASICs continue to forward packets at wire speed until they receive updated routes from JUNOS.

pulled at the speed and inely receive aparticle received.
The key benefits of our solution are:
- carrier class reliability;
- wire speed performance;
- scalability;
- interoperability;

- flexibility;

- reduced complexity; and

- cost effectiveness.

CARRIER CLASS RELIABILITY. The M40's system architecture provides reliable operation for service providers in large

complex networks even under abnormal conditions. This architecture, combined with JUNOS' modular software design, limits the impact of a failure to the specific software application. In addition, the hardware used in the M40 has been designed with a very high level of integration to maximize the mean time between failure. Moreover, data and instructions have appropriate error correction and parity checks in memory to guarantee their integrity.

WIRE SPEED PERFORMANCE. We believe the M40 is the first Internet backbone router that can forward minimum-sized IP packets over OC-48 links at wire speed. This maximizes network stability and the capacity utilization of expensive wide area circuits. In contrast to available solutions, the M40 is able to maintain packet forwarding rates and to avoid dropping significant numbers of packets when active routes are lost or when large numbers of routes change.

SCALABILITY. Our JUNOS Internet Software is designed to accommodate service providers' scale requirements. In addition, the ASIC interface links have been oversized, enabling the M40 to easily scale with growing levels of data traffic. We believe our software and ASIC designs represent a competitive advantage, because it is very difficult for existing vendors to graft these capabilities to their prior generation designs.

INTEROPERABILITY. The M40 has demonstrated consistent interoperability with existing network infrastructures. Our internal test environments confirm interoperability with Cisco routers, a variety of leading ATM and Gigabit Ethernet switches and SONET add drop multiplexers. Deployment of the M40 at several major carriers has demonstrated that JUNOS is interoperable with installed Cisco routers for both routing and administration. In addition, JUNOS enables service providers to manage their complex peering relationships with other service providers despite frequent software, equipment configuration and network architecture changes.

FLEXIBILITY. Our ASICs are programmable and provide the flexibility to add support for new protocols or changes in existing protocols. Since JUNOS is modular in architecture and already supports existing and emerging protocols, it is also a platform for efficiently introducing new interfaces and new services in the network.

REDUCED COMPLEXITY. The M40 is purpose-built for service providers and allows a simple and more structured approach to building Internet backbones compared to the complex topologies in place today. With the M40, service providers can build more efficient networks with less dependence on devices like ATM switches, which reduce the operational burdens of running multiple distinct network layers.

Additionally, the M40 offers a thorough implementation of traffic engineering based on MPLS, including the ability to dynamically adapt traffic flows according to rules adopted by the network operator. Traffic engineering refers to a set of capabilities for understanding underlying traffic trends in the network and maximizing the utilization of the network on multiple dimensions.

[DIAGRAM]

COST EFFECTIVENESS. We have integrated these customer benefits into a system that provides critical routing and forwarding functions at lower overall cost. The M40's wire speed performance allows service providers to reduce network operating cost by making more efficient use of their networks. In addition, we designed the M40 to support a broad variety and density of interfaces in a unit that occupies half a typical telecommunications rack. As a result, service providers can cost effectively deploy the M40, which can be easily upgraded, to connect to a variety of speed and circuit types at the network core.

THE JUNIPER NETWORKS STRATEGY

Our objective is to become the primary supplier of high performance Internet backbone infrastructure. The key elements of our strategy include:

- leverage early lead as supplier of purpose-built Internet infrastructure;
- work very closely with key customers;
- increase penetration at major service providers;
- leverage early success to penetrate new customers rapidly;
- expand sales and distribution network;
- maintain and extend technology leadership; and
- enable new IP-based services.

LEVERAGE EARLY LEAD AS SUPPLIER OF PURPOSE-BUILT INTERNET

INFRASTRUCTURE. From inception we have focused solely on designing and building Internet infrastructure

for service providers. We have integrated purpose-built software and hardware into an Internet optimized architecture that specifically meets service providers' needs and have seen significantly positive initial responses from our existing and potential customers. We believe that many of these customers will deploy Internet backbone infrastructure equipment from only a few vendors. The purpose-built advantages of the M40 provide us with a time-to-market lead, which is a critical advantage in gaining rapid penetration as one of these selected vendors. Once our products are widely deployed in a service provider's network as the primary or even secondary Internet backbone infrastructure equipment, we believe we create a significant barrier to entry to potential competitors who do not currently offer commercially-viable next generation routing solutions.

WORK VERY CLOSELY WITH KEY CUSTOMERS. In developing the M40 and JUNOS Internet Software, we worked very closely with customers to design and build a product specifically to meet their complex needs. Since JUNOS has been available and used by our customers for over a year, we understand clearly the challenges facing these carriers, enabling us to subsequently design additional features and capabilities into both our software and hardware. We believe our close relationships with, and constant feedback from, our customers have been key elements in our design wins and rapid deployment to date. We plan to continue to work very closely with our key customers to implement enhancements to current products as well as to design future products that specifically meet their evolving needs. We are also actively involved with these customers in developing key standards, such as MPLS, and are an active participant in standards organizations such as the Internet Engineering Task Force and the Optical Internetworking Forum.

INCREASE PENETRATION AT MAJOR SERVICE PROVIDERS. Our initial focus has been to penetrate several of the largest service providers, where operators have the technical sophistication, resources and desire to test and evaluate our solution against potential alternatives. While we have received initial orders from major service providers, such as UUNet/MCI WorldCom, Cable & Wireless, AT&T/IBM Global Services, Frontier GlobalCenter and Verio, we believe that there is a significant opportunity to further penetrate these large and complex networks given the advantages of the M40. As the growth of the Internet requires these service providers to continue to build their networks and replace outdated equipment, we will pursue further opportunities to capture greater market share within these large accounts.

LEVERAGE EARLY SUCCESSES TO PENETRATE NEW CUSTOMERS RAPIDLY. We believe that the Internet infrastructure equipment buying patterns of the medium and smaller-sized service providers typically lag behind those of the larger service providers. Since the network challenges that the large service providers face today are likely to be the problems encountered by smaller service providers in the near future, we believe smaller service providers are likely to deploy equipment similar to larger service providers. Furthermore, smaller service providers often lack the technical resources to thoroughly test different vendors' products. Therefore, they typically piggyback on larger service providers' evaluation efforts by purchasing the same platforms deployed by the larger service providers. Since we have begun to sell to several of the largest service providers, we intend to leverage this success by allocating our marketing efforts towards a greater number of medium and smaller-sized service providers.

EXPAND SALES AND DISTRIBUTION NETWORK. In order to pursue the large number of potential customers for our Internet infrastructure solutions, we plan to aggressively add to our sales and distribution capabilities. We are adding to our direct sales and support capabilities for our major customers in North America and adding value-added resellers, system integrators and distributors to sell to and support our other domestic and international customers. In addition to our strategic original equipment

manufacturer relationship with Ericsson, we are adding distribution partners on a country specific basis. In the quarter ended June 30, 1999, we added 21 people to the sales organization and announced the opening of both a European and Japanese office.

MAINTAIN AND EXTEND TECHNOLOGY LEADERSHIP. Our Internet software, ASIC technology and Internet-optimized architecture have been key elements to establishing our technology leadership. We believe that these elements are highly leverageable into future products we are currently building. We intend to maintain and extend our technological leadership in the Internet infrastructure market through continued significant investment in JUNOS Internet Software and ASIC designs to enhance the feature richness of the M40 and to develop future differentiated offerings for service providers.

ENABLE NEW IP-BASED SERVICES. Our platform enables service providers to build networks cost effectively and to offer new differentiated services for their customers more efficiently than conventional products. While we believe that current service providers are likely to be the largest and most successful IP network operators in the near term, many new service providers are likely to emerge oriented around the delivery of IP-based services. These services, which include web hosting, outsourced Internet and intranet services, VPNs, outsourced enterprise applications and voice-over IP, are cost-effectively enabled by our Internet infrastructure platform. Although the market for our products today is driven primarily by the need for traditional Internet network capacity, as other IP-based services and applications continue to grow in importance, the total potential market for our products will continue to grow commensurately.

TECHNOLOGY

Our core technology consists of our Internet backbone router architecture, JUNOS Internet Software and ASIC hardware expertise. Our general-purpose architecture is initially embodied in the M40, but also is designed to serve as the platform for future generations of products.

M40 ARCHITECTURE

The following diagram illustrates the architecture of the M40 Internet backbone router:

[DIAGRAM]

The M40 architecture delivers the forwarding rates and network control necessary to scale Internet backbones rapidly and reliably. The M40 system includes a Routing Engine, or RE, and a Packet Forwarding Engine, or PFE. The clean separation of the routing and forwarding functions ensures that the two functions do not compete for the same resources.

THE ROUTING ENGINE. The RE consists of the JUNOS Internet Software operating on an Intel-based platform. The JUNOS Internet

Software features Internet-scale protocol support, with flexible policy software that enables maximum control over the acceptance, modification and advertisement of route prefixes. In addition, the JUNOS Internet Software offers a range of configuration management tools that simplify the configuration process and help protect against operator error. The RE conducts the processing intensive activity of maintaining the routing table, from which the forwarding table residing in the PFE is derived. The RE is connected to the PFE through a dedicated 100 Mbps link. After constructing or updating the forwarding table, the RE downloads a copy of the table to the PFE. Updates to the forwarding table are done atomically in small incremental steps so that packet forwarding is not interrupted by routing changes.

THE PACKET FORWARDING ENGINE. The M40 delivers wire speed packet forwarding using our ASIC designs. All links between ASICs are oversized, dedicated channels, and the PFE architecture is free from the bottlenecks faced by traditional crossbar switches, which use intelligent agent software to perform both routing and forwarding functions over multiple connections to either parts of the network. Bottlenecks can occur in a crossbar switch because the routing and forwarding functions are not separated. The heart of the PFE is the Internet Processor ASIC. With over one million gates and a lookup rate of over 40 million packets per second, or Mpps, the Internet Processor represents the largest and fastest route lookup ASIC currently available, capable of processing data at throughput rates in excess of 40 Gbps.

All lookup rates reflect longest-match route table lookups for all packets and all lookups are performed in hardware. There is no caching mechanism, which is a mechanism by which critical information, such as destinations for traffic, is stored in rapidly accessible memory to make the process of looking up traffic destinations faster. In addition there is no risk of cache misses in the system which can result in slower storage access and thus considerably slower traffic delivery. In addition, the forwarding table can be updated without affecting forwarding rates. The Internet Processor is programmable to support up to four different forwarding tables (layer 2 and/or layer 3) simultaneously. Supported forwarding protocols currently include unicast and multicast IPv4 and MPLS. Finally, the Internet Processor maintains its performance regardless of length of lookups or table size.

The PFE also features a shared memory system with single-stage buffering, so packets are written to and read from memory only once. Single-stage buffering greatly reduces the complexities and throughput delays associated with multistage buffering systems. The pooled memory is distributed across the Flexible PIC Concentrator, or FPC, cards, allowing memory to scale as interfaces are added. The Internet Processor also features prefix accounting mechanisms that operate at rates in excess of 20 Mpps.

JUNOS INTERNET SOFTWARE: TRAFFIC ENGINEERING AND CONTROL

JUNOS Internet Software offers a full suite of Internet-scale, Internet-tested routing protocols. Protocols and software tools, which are used to control and direct network traffic, are critical to an Internet backbone routing solution. Software control is made more important by the fact that the size and complexity of backbone networks are increasing at a time when service providers are looking to differentiate themselves through value-added service offerings.

JUNOS Internet Software features implementations of all major Internet protocols, including BGP4, DVMRP, PIM, IS-IS, Open Shortest Path First. IS-IS and Open Shortest Path First are algorithms broadly used in enterprise networks and by service providers to determine and update the running state of the network and available destinations in the network. These implementations were developed in-house by our design team which has extensive experience in addressing the scaling issues of rapidly growing service providers.

JUNOS Internet Software also provides a new level of traffic engineering capabilities

with its implementation of MPLS. Developed in conjunction with the Internet Engineering Task Force, our MPLS capability offers enhanced visibility into traffic patterns and the ability to control the path traffic takes through the network. Path selection enables service providers to engineer traffic for efficient use of network capacity and avoidance of congestion. We expect MPLS and its traffic engineering capabilities to become a crucial tool for service providers as they scale their networks.

JUNOS Internet Software features a modular design, with separate programs running in protected memory space in conjunction with an independent operating system. Unlike monolithic, unprotected operating system designs, which are prone to system wide failure, the protected, modular approach improves reliability by ensuring that modifications made to one module have no unwanted side-effects on other sections of the software. In addition, having clean software interfaces between modules facilitates software development and maintenance, enabling faster response to customer needs and delivery of new features.

JUNOS Internet Software has been extensively tested in multiple service provider networks to ensure compatibility with Cisco's IOS. Since each major service provider's network is different, this extensive testing is necessary to ensure seamless introduction into existing service provider environments.

PRODUCTS

M40 INTERNET BACKBONE ROUTER

The M40 Internet backbone router is specifically designed for the specialized needs of service providers. The M40 features leading-edge packet-forwarding performance, very high port density and flexibility, and purpose-built Internet software. The M40 delivers higher speed performance for service providers than current alternatives. The M40 helps solve the critical problem of managing backbone networks by ensuring greater control over traffic and better use of network capacity and by providing service providers with the necessary traffic engineering tools, such as MPLS.

[DIAGRAM]

FEATURES OF THE M40 INTERNET BACKBONE ROUTER

PORT DENSITY PER RACK-INCH. Our M40 Internet backbone router offers very high port density per rack-inch, ensuring optimal use of valuable and scarce PoP rack space. Because the forwarding engine is oversized, all interfaces perform at wire speed for all packet sizes.

The M40 router features a highly flexible combination of backbone interface speeds on the market today. In a 35-inch chassis, the M40 router provides 8 OC-48/STM-16, 32 OC-12/STM-4, 128 OC-3/STM-1 or 128 DS3 interfaces. M40 interfaces are located on Physical Interface Cards, or PICs, which plug into FPC boards. There are eight FPC slots on the M40 and each FPC slot supports up to four PICs and an aggregate throughput rate of more than 2.5 Gbps. In addition to supporting wire speed OC-48 interfaces, each FPC supports various combinations of interfaces, permitting the

mixing of interface types and speeds on a single FPC. Supported PIC interfaces include:

- 1-port OC-48/STM-16 SONET/SDH;
- 1-port OC-12/STM-4 SONET/SDH;
- 1-port OC-12/STM-4 ATM;
- 4-port OC-3/STM-1 SONET/SDH;
- 2-port OC-3/STM-1 ATM;
- 4-port DS3; and
- 1-port Gigabit Ethernet.

The PIC interface cards are sold both as part of the initial product configuration and also, subsequently, as add-on items. Interfaces are typically added as the customer's network expands or the capacity of individual links is upgraded.

CLASS-OF-SERVICE FLEXIBILITY. The M40 router is designed for a variety of class-of-service applications. The M40's queuing mechanism is based on a weighted round-robin selection among multiple queues on outgoing interfaces. Queues can be configured with drop profiles to control the rate of packet drops based on utilization of buffer capacity.

LOW POWER CONSUMPTION. As provider PoPs have grown and become more fully populated with systems, power consumption has become a significant concern. Access to sufficient power can be a constraint on the ability of a facility to support a larger network. Because of its low part count and efficient design, our M40 Internet backbone router draws less than 1700 watts of power (35A at 48V) in a fully loaded configuration, enabling it to offer very high performance and port density per watt.

ENGINEERED FOR STRESSFUL CONDITIONS. The M40 architecture is designed to reliably handle stressful network conditions. For example, the route lookup capacity of our Internet Processor has been oversized with respect to interface speeds. In addition, the separation of routing and processing enables the M40 to converge quickly while maintaining wire speed.

BUILT FOR RELIABILITY. In addition to preserving network reliability, the M40 router is designed to ensure system reliability. The M40's cooling system is fully redundant to protect against individual fan failure. Similarly, the M40's dual power supplies are fully redundant, each capable of supporting the full power load of the system. The M40 can boot off of any one of multiple redundant storage media, ensuring that the system remains operational in the event of a disk failure. For software reliability, JUNOS Internet Software features a protected, modular design with separate processes running in protected memory space on top of an independent operating system. A modular design protects against system wide failures, ensuring that modifications made to one module have no unwanted side-effects on other portions of the code base. Finally, a low component count and an efficient design combine to give the M40 system superior reliability.

The M40 base price list ranges between \$45,000 and \$52,000. PIC module prices begin at \$18,000.

CUSTOMERS

The following is a list of our customers that as of June 30, 1999 have ordered at least \$100,000 of products:

BACKBONE ISP:

AT&T Corporation Cable & Wireless, Inc. Frontier GlobalCenter GST Network Funding, Inc. GTE Internetworking AT&T/IBM Global Services MIBH. Inc. Sprint TCG CERFnet, Inc. **UUNet**

Verio Inc. **CONTENT SITE/HOSTING:**

AboveNet Communications, Inc. **Conxion Corporation** Exodus Communications, Inc. **MULTISERVICE IP:**

ICI/Digex PSINet, Inc.

QWEST Communications International Inc.

EDUCATION/GOVERNMENT:

MCI WorldCom-vBNS University of Southern California University of Washington

INTERNATIONAL (ASIA/EUROPE):

Ericsson K-Net Ltd. Nissho Electronics Corporation **OKI Electronics** Samsung America, Inc. NTT PC Communications, Inc.

We recognize revenue from the shipment of products at the time of shipment unless we have future obligations for installation or if we have to obtain customer acceptance. In those cases, we defer recognition of the revenue until we have met our obligations.

For the six months ended June 30, 1999, we recognized revenue from shipments to 11 customers. Two customers, UUNet/ MCIWorldCom and Cable & Wireless, Inc., accounted for approximately 62% of our net revenues for the six months ended June 30, 1999.

SALES AND MARKETING

We sell and market our products primarily through our direct sales organization, value-added resellers, an original equipment manufacturer and country specific distributors.

DIRECT SALES. Our North American direct sales organization is divided into Western and Eastern regional operations. Our direct sales efforts are focused on the largest service providers. The direct sales account managers cover the market on an assigned account basis and work as a team with account oriented systems engineers. They are directed by a regional operations manager who reports to the North American Director of Sales. We also have technical engineers that consult with and provide our customers with guidance and assistance on the evolution of their networks as it relates to the deployment of our products. These consulting engineers also help in defining the features that are required for our products to be successful in specific applications. A key feature of our sales effort is the relationship we establish at various levels in our customers' organization. Our sales team maintains contact with key individuals who have service planning and infrastructure buildout responsibility.

VALUE-ADDED RESELLERS. We have complemented our direct sales effort in the United States through the addition of several highly focused value-added resellers. Our arrangements with value-added resellers typically have been non-exclusive and provide the value-added reseller with discounts based upon the volume of their orders.

ORIGINAL EQUIPMENT MANUFACTURER PARTNER. We have established a strategic distribution relationship with Ericsson. We believe that Ericsson has significant customer relationships in place and offers products which complement ours. Ericsson will provide the first level of support to its customers. Our agreement with Ericsson allows it to distribute our products on a worldwide, non-exclusive basis with discounts based upon the volume of orders it receives.

INTERNATIONAL DISTRIBUTORS. In order to further our international sales objectives, we are establishing a number of country specific distributors. These distributors have expertise in deploying complex Internet infrastructure equipment in their respective markets and provide the first level of support required by our international customers.

As of June 30, 1999, we employed 59 people in our sales support and marketing organizations.

CUSTOMER SERVICE AND SUPPORT

We believe that a broad range of support services is essential to the successful installation and ongoing support of the M40. We have hired support engineers with proven Internet experience. We offer the following services: 24 hours a day, seven days a week technical assistance (online, telephone and on-site), professional services, educational services, logistics services and web-based information.

We offer a variety of flexible and comprehensive support programs, including basic hardware and software warranty services, next day onsite parts and labor, 24 hours a day, seven days a week same day parts and labor and on-site resident engineers. We deliver these services directly to major end users and also utilize a two-tiered support model, leveraging the capabilities of our partners and third party organizations. We also train our partners in the delivery of education and support services.

Customer service and support provide front line product support and is the problem resolution interface to our partners and direct end users. If customer service and support are unable to resolve an issue themselves, they duplicate the problem scenario and provide the failure information, such as logs, dumps, traces and system configuration to appropriate subject matter experts in our engineering department.

Based on the severity of the problem and the impact to our customers' network, there are strict escalation guidelines to ensure that the appropriate technical resource and management attention is brought to bear on the problem in a timeframe commensurate with problem priority. The overall goal is to fix the problem, at the appropriate level, in the right timeframe in order to ensure our customers' satisfaction.

As of June 30, 1999, we employed 24 people in our customer service and support organization, with the majority located in our Mountain View, California corporate headquarters.

RESEARCH AND DEVELOPMENT

We have assembled a team of skilled engineers with extensive experience in the fields of high end computing, network system design, Internet routing protocols and embedded software. These individuals have been drawn from leading computer data networking and telecommunications companies. In addition to building complex hardware and software systems, the engineering team has experience in delivering very large, highly integrated ASICs and extremely scalable Internet software.

Our research and development department is organized into teams that work in parallel on several projects in a way similar to the development of successive generations of complex microprocessors. As a result, we will seek to offer our customers next generation products as they are needed.

We believe that strong product development capabilities are essential to our strategy of enhancing our core technology, developing additional applications, incorporating that technology and maintaining

the competitiveness of our product and service offerings. We are leveraging our first generation ASICs, developing additional network interfaces targeted to our customer applications and continuing to develop next generation technology to support the anticipated growth in network bandwidth requirements. We continue to expand the functionality of our JUNOS Internet Software to improve performance and scalability, and to provide an enhanced user interface.

Our research and development process is driven by the availability of new technology, market demand and customer feedback. We have invested significant time and resources in creating a structured process for undertaking all product development projects. This process involves all functional groups and all levels within our company. Following an assessment of market demand, our research and development team develops a full set of comprehensive functional product specifications based on inputs from the product management and sales organizations. This process is designed to provide a framework for defining and addressing the steps, tasks and activities required to bring product concepts and development projects to market.

As of June 30, 1999, we employed 136 people in our research and development organization.

Our research and development expenses totaled \$14.2 million for the six months ended June 30, 1999, \$24.0 million for the year ended December 31, 1998, \$9.4 million for the year ended December 31, 1997 and \$1.9 million for the period from February 2, 1996, the date of our inception, to December 31, 1996.

MANUFACTURING

Our manufacturing operation is entirely outsourced. We have developed a strategic relationship with Solectron, under which we have subcontracted our manufacturing activity. This subcontracting activity extends from prototypes to full production and includes activities such as material procurement, final assembly, test, control and shipment to our customers. We design, specify and monitor all of the tests that are required to meet internal and external quality standards. This arrangement provides us with the following benefits:

- we operate without dedicating any space to manufacturing operations;
- we conserve the working capital that would be required for funding inventory;
- we can adjust manufacturing volumes quickly to meet changes in demand; and
- we can quickly deliver products to customers through Solectron's turnkey manufacturing and drop shipment capabilities.

Our ASICs are manufactured by IBM using its 0.25 micron process. IBM is responsible for all aspects of the production of the ASICs using our proprietary designs.

COMPETITION

Competition in the Internet infrastructure market is intense. The market historically has been dominated by Cisco Systems, Inc., with other companies such as Bay Networks, Inc. (now Nortel Networks Corporation) and Ascend Communications, Inc. (which has been acquired by Lucent Technologies Inc.) providing products to a smaller segment of the market. In addition, a number of private companies have announced plans for new products to address the same problems which our products address.

Cisco traditionally has been the dominant supplier of solutions to this market. We believe this is the result of its early leadership position in the enterprise router market. As the Internet has grown rapidly, Cisco has leveraged this position and has developed a broad product line of routers which support all major local area and wide area interfaces. We believe that our ability to compete with Cisco depends upon our ability to demonstrate that our products are superior in meeting the needs of service providers and are extremely compatible with Cisco's current and future products. Although we believe that we are currently among the top providers of

Internet infrastructure solutions worldwide, we cannot assure you that we will be able to compete successfully with Cisco, currently the leading provider in this market.

We expect that, over time, large companies with significant resources, technical expertise, market experience, customer relationships and broad product lines, such as Lucent and Nortel, will introduce new products which are designed to compete more effectively in this market. As a result, we expect to face increased competition in the future from larger companies with significantly more resources than we have. Although we believe that our technology and the purpose-built features of our products make them unique and will enable us to compete effectively with these companies, we cannot assure you that we will be successful.

Many of our current and potential competitors, such as Cisco, Lucent and Nortel, have significantly broader product lines than we do and may bundle their products with other networking products in a manner that may discourage customers from purchasing the M40 Internet backbone router. Also, many of our current and potential competitors have greater name recognition and more extensive customer bases that could be leveraged. Increased competition could result in price reduction, fewer customer orders, reduced gross margins and loss of market share, any of which could seriously harm our operating results.

There are also many small private companies which claim to have products with greater capabilities than the M40. Consolidation in this industry has begun, with one or more of these smaller private companies being acquired by large, established suppliers of Internet infrastructure products, and we believe it is likely to continue. As a result, we expect to face increased competition in the future from larger companies with significantly more resources than we have.

Several companies also provide solutions which can substitute for some uses of routers. For example, high bandwidth asynchronous transfer mode, or ATM, switches, are used in the core of certain major backbone service providers. ATM switches can carry a variety of traffic types, including voice, video and data, using fixed, 53 byte cells. Companies that use ATM switches are enhancing their products with new software technologies such as multi-protocol label switching, or MPLS, which can potentially simplify the task of mixing routers and switches in the same network. These substitutes can reduce the need for large numbers of routers.

INTELLECTUAL PROPERTY

Our success and ability to compete are substantially dependent upon our internally developed technology and know how. We have two patents issued relating to high speed switching devices. These patents will expire on April 18, 2017 and December 16, 2016, respectively. In addition we have five patent applications pending in the United States relating to the design of the M40 and our future products. Our engineering teams have significant expertise in ASIC design and we own all rights to the design of the ASICs which form the core of the M40. Our JUNOS Internet Software was developed internally and is protected by United States and other copyright laws.

While we rely on patent, copyright, trade secret and trademark law to protect our technology, we also believe that factors such as the technological and creative skills of our personnel, new product developments, frequent product enhancements and reliable product maintenance are essential to establishing and maintaining a technology leadership position. There can be no assurance that others will not develop technologies that are similar or superior to our technology.

Our success will depend upon our ability to obtain necessary intellectual property rights and protect our intellectual property rights. We cannot be certain that we will be able to obtain the necessary intellectual property rights or that other parties will not contest our intellectual property rights.

LEGAL PROCEEDINGS

We are not subject to any material legal proceedings.

EMPLOYEES

As of June 30, 1999, we had 265 full-time employees, 136 of whom were engaged in research and development, 59 in sales and marketing, 24 in customer support and 46 in finance, administration and operations. None of our employees is represented by a labor union. We have not experienced any work stoppages and we consider our relations with our employees to be good.

Our future performance depends in significant part upon the continued service of our key technical, sales and senior management personnel, none of whom is bound by an employment agreement requiring service for any defined period of time. The loss of the services of one or more of our key employees could have a material adverse effect on our business, financial condition and results of operations. Our future success also depends on our continuing ability to attract, train and retain highly qualified technical, sales and managerial personnel. Competition for such personnel is intense, and there can be no assurance that we can retain our key personnel in the future.

FACILITIES

We sublease approximately 60,000 square feet in two buildings located in Mountain View, California. Approximately 33,000 square feet are subleased pursuant to a sublease that expires December 31, 2001, and approximately 27,000 square feet are subleased pursuant to a sublease that expires June 30, 2000. We believe that by the end of 1999, we will need additional space to accommodate our growth. To provide this necessary additional space, we have entered into leases for approximately 144,000 and 25,000 square feet of office space in Sunnyvale, California. The lease on the office space for 144,000 square feet will commence on the later of May 1, 2000 or the completion of our improvements on the premises, and it will expire on the later of May 1, 2012 or twelve years after the completion of our improvements on the premises. The lease on the office space for 25,000 square feet will commence on October 1, 1999, and it will expire two months after the later of May 1, 2000 or the completion of our improvements on the 144,000 square foot facility. The commercial real estate market in the San Francisco Bay area is volatile and unpredictable in terms of available space, rental fees, occupancy rates and preferred locations. We can not be certain that additional space will be available when we require it, or that it will be affordable or in a preferred location.

MANAGEMENT

EXECUTIVE OFFICERS AND DIRECTORS

Our executive officers and directors and their ages, as of August 31, 1999, are as follows:

NAME	AGE	POSITION
Scott Kriens	42	President, Chief Executive Officer and Chairman of the Board
Pradeep Sindhu	46	Chief Technical Officer and Vice Chairman of the Board
Joe Furgerson	40	Vice President of Marketing
Marcel Gani	46	Chief Financial Officer
Steven Haley	44	Vice President of Worldwide Sales and Service
Gary Heidenreich	50	Vice President of Operations
Peter L. Wexler	43	Vice President of Engineering
William R. Hearst III(1)	49	Director
Vinod Khosla(2)	44	Director
C. Richard Kramlich(1)	64	Director
William Stensrud(2)	49	Director

(1) Member of audit committee

(2) Member of compensation committee

SCOTT KRIENS has served as President, Chief Executive Officer and Chairman of the board of directors of Juniper Networks since October 1996. From April 1986 to January 1996, Mr. Kriens served as Vice President of Sales and Vice President of Operations at StrataCom, Inc., a telecommunications equipment company, which he co-founded in 1986. Mr. Kriens received a B.A. in Economics from California State University, Hayward.

PRADEEP SINDHU co-founded Juniper Networks in February 1996 and served as Chief Executive Officer and Chairman of the board of directors until September 1996. Since then, Dr. Sindhu has served as Vice Chairman of the board of directors and Chief Technical Officer of Juniper Networks. From September 1984 to February 1991, Dr. Sindhu worked as a Member of the Research Staff, and from March 1987 to February 1996, as the Principal Scientist, and from February 1994 to February 1996, as Distinguished Engineer at the Computer Science Lab, Xerox Corporation, Palo Alto Research Center, a technology research center. Dr. Sindhu holds a B.S.E.E. from the Indian Institute of Technology in Kanpur, an M.S.E.E. from the University of Hawaii and a Masters in Computer Science and Ph.D. in Computer Science from Carnegie-Mellon University.

JOE FURGERSON joined Juniper Networks in January 1997. He served as our Director of Marketing from January 1997 to September 1998 and has served as our Vice President of Marketing since September 1998. From April 1994 to December 1996, Mr. Furgerson served as Director of Product Marketing, Network Systems Division at 3Com Corporation, a data networking company. He holds a B.A. in Economics from Claremont Men's College and an M.B.A. from the Stanford Graduate School of Business.

MARCEL GANI joined Juniper Networks as Chief Financial Officer in February 1997. From January 1996 to January 1997, Mr. Gani served as Vice President and Chief Financial Officer of NVIDIA Corporation, a 3D graphic processor company. Mr. Gani also held the positions of Vice President and Chief Financial Officer at Grand Junction Networks, a data networking company acquired by Cisco Systems, Inc., from March 1995 to January 1996, and at Primary Access Corporation, a data networking company acquired by 3Com Corporation, from March 1993 to March 1995. Mr. Gani holds an M.B.A. from the University of Michigan.

STEVEN HALEY joined Juniper Networks as Vice President of Worldwide Sales and Service in August 1997. Prior to joining Juniper Networks, Mr. Haley served as Vice President of Sales at Cisco Systems, Inc., a data networking company, from July 1996 to August 1997. From February 1990 to July 1996, he worked for StrataCom, Inc., serving in a variety of management roles from Managing Director, Europe to Vice President of Sales, Americas. He holds a B.S. in Marketing from the University of Massachusetts, Amherst.

GARY HEIDENREICH joined Juniper Networks in July 1997 as Vice President of Operations. From August 1993 to July 1997, Mr. Heidenreich served as Vice President of Systems Manufacturing at 3Com Corporation. Mr. Heidenreich holds an M.B.A. from the University of Dallas and a B.S.I.E. from New Mexico State University.

PETER L. WEXLER joined Juniper Networks as Vice President of Engineering in January 1997. From April 1995 to January 1997, Mr. Wexler served as Vice President of Engineering at Bay Networks, a data networking company. From April 1993 to April 1995, Mr. Wexler served as Director of High-End Platform Development at Wellfleet Communications, a predecessor to Bay Networks and a manufacturer of high-performance routers. He holds a B.S.E. from State University of New York at Stony Brook, an M.S.E. from the University of Illinois and an M.B.A. from Boston University.

WILLIAM R. HEARST III has served as a Director of Juniper Networks since February 1996 and has served as a member of the audit committee since July 1998. Mr. Hearst is a partner with Kleiner Perkins Caufield & Byers, a venture capital firm located in Menlo Park, California. From May 1995, until August 1996, he was the CEO of @Home Network, a high speed Internet access and consumer online services company. Will Hearst was editor and publisher of the San Francisco Examiner from 1984 until 1995. He serves on the boards of: Excite@Home, Juniper Networks, RePlay Networks, Com21, Oblix, Doublebill, Geocast, the Hearst Corporation and Hearst-Argyle Television. He is a Fellow of the AAAS, a Trustee of Carnegie Institution in Washington DC, and a Trustee of the California Academy of Sciences. Hearst is a 1972 graduate of Harvard University, holding an AB degree in Mathematics.

VINOD KHOSLA has served as a Director of Juniper Networks since February 1996 and has served as a member of the compensation committee since July 1998. Mr. Khosla has been a General Partner with the venture capital firm of Kleiner Perkins Caufield & Byers from February 1986 to the present. Mr. Khosla was a co-founder of Daisy Systems Corporation, an electronic design automation company, and the founding Chief Executive Officer of Sun Microsystems, Inc., a computer and data networking company. Mr. Khosla also serves on the boards of Asera, Cerent, Concentric Network Corporation, Corio Inc., Corvis Corporation, Siara Systems and QWEST Communications International Inc., as well as several other private companies. Mr. Khosla holds a B.S.E.E. from the Indian Institute of Technology in New Delhi, an M.S.E. from Carnegie-Mellon University, and an M.B.A. from the Stanford Graduate School of Business.

C. RICHARD KRAMLICH has served as a Director of Juniper Networks since July 1996 and has been a member of the audit committee since July 1998. Mr. Kramlich is the co-founder and has been a General Partner of New Enterprise Associates, L.P., a venture capital fund, since 1978. He is a director of Healtheon Corporation, Netsolve, Inc., Com 21, Inc., Lumisys, Inc., Silicon Graphics, Inc. and Chalone Wine Group, Inc. Mr. Kramlich holds a B.S. from Northwestern University and an M.B.A. from Harvard Business School.

WILLIAM STENSRUD has served as a Director of Juniper Networks since October 1996 and has served as a member of the compensation committee since July 1998. Mr. Stensrud has been a General Partner with the venture capital firm of Enterprise Partners from January 1997 to the present. Mr. Stensrud was an independent investor and turn-around executive from March 1996 to January 1997. During this period

Mr. Stensrud served as President at Paradyne Corporation and as a director of Paradyne Corporation, GlobeSpan Corporation and Paradyne Partners LLP, all data networking companies. From January 1992 to July 1995, Mr. Stensrud served as President and Chief Executive Officer of Primary Access Corporation, a data networking company acquired by 3Com Corporation. From the acquisition through March 1996, Mr. Stensrud served as an executive at 3Com Corporation. From 1986 to 1992, Mr. Stensrud served as the Marketing Vice President of StrataCom, Inc., a telecommunications equipment company, which Mr. Stensrud co-founded. Mr. Stensrud also serves on the boards of Rhythms Corporation, Paradyne Corporation and Packeteer Corporation. He holds a B.S. degree in Electrical Engineering and Computer Science from Massachusetts Institute of Technology.

BOARD OF DIRECTORS

Our board of directors currently consists of six authorized members. The board is divided into three classes, Class I, Class II and Class III, with each class serving staggered three-year terms. The Class I Directors, currently Messrs. Kriens and Stensrud, will stand for re-election at the 2000 annual meeting of stockholders. The Class II Directors, currently Messrs. Khosla and Sindhu, will stand for re-election at the 2001 annual meeting of stockholders and the Class III Directors, currently Messrs. Hearst and Kramlich, will stand for re-election at the 2002 annual meeting of stockholders. This classification of the board of directors may delay or prevent a change in control of our company or in our management. See "Description of Capital Stock -- Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions."

Executive officers are appointed by the board of directors on an annual basis and serve until their successors have been elected and qualified. There are no family relationships among any of our directors, officers or key employees.

BOARD COMMITTEES

We established an audit committee and a compensation committee in July 1998. The audit committee consists of Messrs. Hearst and Kramlich. The audit committee reviews our internal accounting procedures and consults with and reviews the services provided by our independent accountants.

The compensation committee consists of Messrs. Khosla and Stensrud. The compensation committee reviews and recommends to the board of directors the compensation of all of our officers and directors, including stock compensation and loans and establishes and reviews general policies relating to the compensation and benefits of our employees.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

Prior to establishing the compensation committee, the board of directors as a whole performed the functions delegated to the compensation committee. No member of the board of directors or the compensation committee serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

DIRECTOR COMPENSATION

We do not currently compensate in cash our directors for their service as members of the board of directors, although they are reimbursed for certain expenses in connection with attendance at board of director and compensation committee meetings. Under our 1996 Stock Plan, nonemployee directors are eligible to receive stock option grants at the discretion of the board of directors or other administrator of the plan. For further information regarding the provisions of the 1996 Stock Plan, see "-- Incentive Stock Plans."

LIMITATIONS ON DIRECTORS' LIABILITY AND INDEMNIFICATION

Our certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for:

- any breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

The limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our certificate of incorporation and bylaws provide that we will indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by law. We believe that indemnification under our bylaws covers at least negligence and gross negligence on the part of indemnified parties. Our bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in their capacity as an officer, director, employee or other agent, regardless of whether the bylaws would permit indemnification.

We have entered into agreements to indemnify our directors, executive officers and certain other employees, in addition to the indemnification provided for in our bylaws. These agreements, among other things, provide for indemnification for judgments, fines, settlement amounts and certain expenses, including attorneys' fees incurred by in any action or proceeding, including any action by or in the right of Juniper Networks, arising out of the person's services as a director, executive officer or employee of us, any of our subsidiaries or any other company or enterprise to which the person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified persons for those positions.

The limited liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty and may reduce the likelihood of derivative litigation against our directors and officers, even though a derivative action, if successful, might otherwise benefit us and our stockholders. A stockholder's investment in us may be adversely affected to the extent we pay the costs of settlement or damage awards under these indemnification provisions.

At present, there is no pending litigation or proceeding involving any of our directors, officers or employees in which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

EXECUTIVE COMPENSATION

SUMMARY COMPENSATION TABLE. The following table sets forth the compensation earned, awarded or paid for services rendered to us in all capacities for the fiscal year ended December 31, 1998, by our Chief Executive Officer and our four next most highly compensated executive officers who earned more than \$100,000 in salary and bonus during the fiscal year ended December 31, 1998, whom we refer to in this prospectus collectively as the "Named Executive Officers":

SUMMARY COMPENSATION TABLE

				LONG-TERM COMPENSATION AWARDS	
			JAL SATION	SECURITIES UNDERLYING	ALL OTHER
NAME AND PRINCIPAL POSITIONS	YEAR	SALARY	BONUS	OPTIONS	COMPENSATION(1)
Scott Kriens	1998	\$170,000	\$	1,245	\$1,200
President and Chief	1997	170,000			
Executive Officer	1996	42,500			
Steven Haley					1,133
Vice President of Worldwide	1997	62,109			
Sales and Service	1996				
Pradeep Sindhu	1998	140,225	25,000	1,785	1,004
Chief Technical Officer	1997	114,000			
	1996	57,000			
Peter Wexler	1998	150,000		1,020	1,133
Vice President of	1997	137,500			
Engineering	1996				
Marcel Gani		150,000		915	1,133
Chief Financial Officer		131,250			
	1996				

⁽¹⁾ Consists of premiums paid by us for term life insurance.

OPTION GRANTS IN LAST FISCAL YEAR. The following table shows certain information regarding stock options granted to the Named Executive Officers during the fiscal year ended December 31, 1998. All of these stock options were granted under our 1996 Stock Plan and have a term of ten years, subject to earlier termination in the event the optionees' services to us cease. See "-- Incentive Stock Plan" for a description of material terms of these stock options. See "Certain Transactions" for a description of the exercises of stock options granted to the Named Executive Officers under the 1996 Stock Plan. In accordance with the rules of the Securities and Exchange Commission, also shown below is the potential realizable value over the term of the option (the period from the grant date to the expiration date) based on assumed rates of stock appreciation of 5% and 10%, compounded annually. These amounts are based on certain assumed rates of appreciation and do not represent our estimate of our future stock price. Actual gains, if any, on stock option exercises will be dependent on the future performance of the common stock.

OPTION GRANTS IN LAST FISCAL YEAR

					POTENTIAL	REALIZABLE
					VALUE A	T ASSUMED
	NUMBER OF				ANNUAL RAT	ES OF STOCK
	SECURITIES	PERCENT OF TOTAL			APPRECIA	ATION FOR
	UNDERLYING	OPTIONS GRANTED	EXERCISE		OPTION	TERM(3)
	OPTIONS	TO EMPLOYEES	PRICE PER	EXPIRATION		
NAME	GRANTED	DURING PERIOD(1)	SHARE(2)	DATE	5%	10%
Scott Kriens	1,245(4)	0.035%	\$1.67	8/16/08	\$ 300,089	\$ 479,073
Steven Haley	37,500(5)	1.076	0.83	5/13/08	9,070,324	14,461,411
	630(4)	0.018	1.67	8/16/08	151,852	242,423
Pradeep Sindhu	1,785(6)	0.051	1.67	8/16/08	430,248	686,864
Peter Wexler	1,020(6)	0.029	1.67	8/16/08	245,856	392,494
Marcel Gani	915(4)	0.026	1.67	8/16/08	220,547	352,090

⁽¹⁾ Based on an aggregate of 3,512,480 options granted by us during the fiscal year ended December 31, 1998, to our employees, directors and consultants, including the Named Executive Officers.

- (3) The potential realizable value is calculated based on the ten year term of the option at its time of grant. It is calculated based on the assumption that the closing price of \$149.00 for the common stock on of June 30, 1999 appreciates at the indicated annual rate compounded annually for the entire term of the option and that the option is exercised and sold on the last day of its term for the appreciated stock price.
- (4) As of June 30, 1999, each of the options for Messrs. Kriens, Haley and Gani listed in the table under this note had been exercised, but the shares purchased are subject to repurchase by us at the original exercise price upon the optionee's cessation of services prior to vesting of the shares, which will be fully vested and no longer be subject to repurchase by us on August 16, 1999. See "Employment Agreements" for a description of accelerated vesting for Messrs. Kriens and Gani.
- (5) As of June 30, 1999, the options for Mr. Haley listed in the table under this note had not been exercised, but the shares are subject to early exercise by Mr. Haley and are then subject to repurchase by us at the original exercise price upon Mr. Haley's cessation of

⁽²⁾ Options were granted at an exercise price equal to the fair market value of our common stock, as determined in good faith by our board of directors.

service prior to vesting of such shares. The options for Mr. Haley under this note vested as to 25% on May 13, 1999, and the balance vests in a series of monthly installments over the next three years of service.

(6) As of June 30, 1999, none of the options for Messrs. Sindhu and Wexler listed in the table under this note had been exercised, but the shares are subject to early exercise by Messrs. Sindhu and Wexler, and are then subject to repurchase by us at the original exercise price upon optionee's cessation of service prior to the vesting of such shares. These options shall fully vest and no longer be subject to repurchase by us on August 16, 1999.

AGGREGATE OPTION EXERCISES AND OPTION VALUES. The following table sets forth information with respect to the Named Executive Officers concerning option exercises for the fiscal year ended December 31, 1998, and exercisable and unexercisable options held as of December 31, 1998:

OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR-END OPTION VALUES

			NUMBER OF	SECURITIES		
			UNDERLYING	UNEXERCISED	VALUE OF 1	UNEXERCISED
			OPTIC	ONS AT	IN-THE-MON	EY OPTIONS AT
	SHARES		DECEMBER	31, 1998	DECEMBER :	31, 1998(2)
	ACQUIRED ON	VALUE				
NAME	EXERCISE	REALIZED(1)	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
Scott Kriens	1,245(3)	\$2,075			\$	\$
Pradeep Sindhu	==		1,785(4)	==	262,984	==
Marcel Gani	915(3)	1,525				
Peter Wexler			1,020(4)		150,277	
Steven Haley	630(3)	1,050	37,500(5)		5,556,375	

⁽¹⁾ Based on the fair market value of our stock on the date of grant, as determined by our board of directors, minus the exercise price, multiplied by the number of shares issued upon exercise of the option.

- (3) As of June 30, 1999, each of the options for Messrs. Kriens, Haley and Gani listed in the table under this note had been exercised, but the shares purchased are subject to repurchase by us at the original exercise price upon the optionee's cessation of services prior to vesting of the shares, which shares shall be fully vested and no longer subject to repurchase by us on August 16, 1999. See "Employment Agreements" for a description of accelerated vesting for Messrs. Kriens and Gani.
- (4) As of June 30, 1999, none of the options for Messrs. Sindhu and Wexler listed in the table under this note had been exercised, but the shares are subject to early exercise by Messrs. Sindhu and Wexler and are then subject to repurchase by us at the original exercise price upon optionee's cessation of service prior to the vesting of the shares. These options shall be fully vested and no longer subject to repurchase by us on August 16, 1999.
- (5) As of June 30, 1999, these options had not been exercised, but the shares are subject to early exercise by Mr. Haley and are then subject to repurchase by us at the original exercise price upon Mr. Haley's cessation of service prior to vesting of such shares. As of May 13, 1999, 25% of these options were vested and the balance vests in a series of monthly installments over the following three years.

⁽²⁾ The value of in-the-money options is based on the closing price on June 30, 1999 of \$149.00 per share, minus the per share exercise price, multiplied by the number of shares underlying the option.

INCENTIVE STOCK PLANS

1996 STOCK PLAN, (AS AMENDED ON APRIL 19, 1999)

Our 1996 Stock Plan, as amended on April 19, 1999, provides for the grant of incentive stock options to employees and nonstatutory stock options, or incentive stock options and stock purchase rights to employees, directors and consultants. A total of 19,187,500 shares of common stock have been reserved for issuance under the 1996 Stock Plan. An annual increase will be added on the first day of our fiscal year, beginning in 2000, equal to the lesser of:

- 3,000,000 shares;
- 5% of the outstanding shares on that date; or
- a lesser amount determined by the board of directors.

As of June 30, 1999, options to purchase 5,007,695 shares of common stock were outstanding and 3,173,988 shares were available for future grant.

The compensation committee of the board of directors administers the 1996 Stock Plan and determines the terms of options granted, including the exercise price, the number of shares subject to individual option awards and the vesting period of the options. No employee may be granted options to purchase more than 1,000,000 shares in any fiscal year, except that in the initial year of employment, the limit is 2,000,000 shares. The exercise price of incentive stock option grants cannot be lower than 100% of the fair market value of the common stock on the date of grant and, in the case of incentive stock options granted to holders of more than 10% of our voting power, not less than 110% of the fair market value. The term of an incentive stock option cannot exceed ten years, and the term of an incentive stock option granted to a holder of more than 10% of our voting power cannot exceed five years. Stock purchase rights may be issued either alone, in addition to, or in tandem with other awards granted under the 1996 Stock Plan and/or cash awards made outside of the 1996 Stock Plan. Options and stock purchase rights granted under our 1996 Stock Plan generally become exercisable at the rate of the total number of shares subject to the option twelve months after the date of grant, and 1/48 of the shares subject to the option each month thereafter. Options not assumed or substituted by a successor corporation in the event we are acquired, will terminate on the closing date of the acquisition. The board of directors may amend, modify or terminate the 1996 Stock Plan at any time as long as such amendment, modification or termination does not impair the rights of plan participants with respect to outstanding options under the 1996 Stock Plan. Our 1996 Stock Plan will terminate in June 2006, unless terminated earlier by the board of directors.

1999 EMPLOYEE STOCK PURCHASE PLAN

Our 1999 Employee Stock Purchase Plan was adopted in April 1999, and became effective on June 24, 1999. The 1999 Employee Stock Purchase Plan provides our employees with an opportunity to purchase common stock of Juniper Networks through accumulated payroll deductions. A total of 500,000 shares of common stock have been reserved for issuance under the 1999 Employee Stock Purchase Plan, none of which had been issued as of June 30, 1999. An annual increase will be added on the first day of our fiscal year, beginning in 2000, equal to the lesser of:

- 500,000 shares;
- 1% of the outstanding shares on that date; or
- a lesser amount determined by the board of directors.

The 1999 Employee Stock Purchase Plan will be administered by our board of directors or by a committee appointed by the board of directors. The 1999 Employee Stock Purchase Plan will permit eligible employees to purchase common stock through payroll deductions of up to 10% of an employee's base compensation on each pay day during the offering period, provided that no employee may purchase more than 1,000

shares in any twelve-month period, and in no event may an employee purchase more than \$25,000 worth of stock, determined at the fair market value of the shares at the time the option is granted, in one calendar year. Any employee employed by us on a given enrollment date is eligible to participate during that offering period, provided they remain employed by us for the duration of that offering period. Unless the board of directors or its committee determines otherwise, the 1999 Employee Stock Purchase Plan will be implemented in a series of offering periods, each approximately six months in duration; provided, however, that the first offering period will be approximately thirteen months in duration, ending on the last trading day on or before July 31, 2000. Offering periods will begin on the first trading day on or after August 1 and February 1 of each year and terminate on the last trading day in the period six months later. However, the first offering period shall commence on the date upon which the registration statement, of which this prospectus is a part, is declared effective by the Commission and terminate on the last trading day in the period ending July 31, 2000. In the event we are acquired, offering and purchase periods then in progress will be shortened and all options automatically exercised. The price at which common stock will be purchased under the 1999 Employee Stock Purchase Plan is equal to 85% of the fair market value of the common stock on the first day of the applicable offering period or the last day of the applicable purchase period, whichever is lower. Employees may end their participation in the offering period at any time, and participation automatically ends on termination of employment. The board of directors may amend, modify or terminate the 1999 Employee Stock Purchase Plan at any time as long as the amendment, modification or termination does not impair vesting rights of plan participants. The 1999 Employee Stock Purchase Plan will terminate on April 18, 2009, unless terminated

401(k) PLAN

In 1996, we adopted a Retirement Savings and Investment Plan, or 401(k) plan, covering our full-time employees located in the United States. The 401(k) plan is intended to qualify under Section 401(k) of the Internal Revenue Code of 1986, as amended, so that contributions to the 401 (k) plan by employees, and the investment earnings thereon, are not taxable to employees until withdrawn from the 401(k) plan. Pursuant to the 401(k) plan, employees may elect to reduce their current compensation by up to the lesser of 20% of their annual compensation or the statutorily prescribed annual limit (\$10,000 in 1998) and to have the amount of the reduction contributed to the 401(k) plan. The 401(k) plan does not permit additional matching contributions to the 401(k) plan by us on behalf of participants in the 401(k) plan.

EMPLOYMENT AGREEMENTS

We entered into a severance agreement with Mr. Kriens on October 1, 1996, which provides that he will be entitled to base compensation and benefit payments for a period of three months, in the event that his employment is terminated in connection with a change of control of Juniper Networks. Further, Mr. Kriens' restricted stock would be released from any repurchase option and his stock options would become vested and exercisable as to an additional amount equal to that amount which would have vested and become exercisable had Mr. Kriens remained employed for a period of 18 months following the change of control. If his employment continues following a change of control, his stock options will be vested and exercisable at a rate 1.5 times the rate otherwise set forth in the stock option agreement for a period of twelve months following the change of control. Under the employment agreement, Mr. Kriens is entitled to receive three months' base compensation and benefits, regardless of whether there is a change of control, in the event that his employment is involuntarily terminated. Upon involuntary termination, and regardless of whether there has been a change of control, Mr. Kriens' restricted stock and stock options would become immediately vested and exercisable as to an additional amount equal to the number of stock options which would have become vested and

exercisable during the three-month period following the involuntary termination had Mr. Kriens remained employed with us.

We entered into an employment agreement with Mr. Gani in February 1997, which provides that he will be entitled to receive base compensation and benefits for a period of three months, in the event of involuntary termination. In the event of a change of control at Juniper Networks, the vesting of Mr. Gani's stock options will accelerate as to that number of options equal to the number of shares that would vest over the next 30 months in accordance with our standard vesting schedule or the balance of his unvested stock, whichever amount is less.

CERTAIN TRANSACTIONS

Since our inception in February 1996, there has not been, nor is there currently proposed, any transaction or series of similar transactions to which we were or are to be a party in which the amount involved exceeds \$60,000, and in which any director, executive officer, holder of more than 5% of our common stock or any member of the immediate family of any of these people had or will have a direct or indirect material interest other than compensation agreements and other arrangements, which are described where required in "Management," and the transactions described below.

TRANSACTIONS WITH DIRECTORS, EXECUTIVE OFFICERS AND 5% STOCKHOLDERS

COMMON STOCK. On February 26, 1996, we issued 2,250,000 shares of common stock at a price of \$0.044 per share to Mr. Sindhu, one of our founders, executive officers and directors.

On June 11, 1996, we issued the following shares of common stock at a price of \$0.044 per share to the following purchasers, among others:

	SHARES OF
PURCHASER	COMMON STOCK
Kleiner, Perkins, Caufield & Byers VII	5,493,749
KPCB VII Founders Fund	600,001
KPCB Information Sciences Zaibatsu Fund II	156,249

Kleiner, Perkins, Caufield & Byers VII, KPCB VII Founders Fund and KPCB Information Sciences Zaibatsu Fund II are affiliated entities and together are considered a holder of more than 5% of our common stock. Messrs. Khosla and Hearst, two of our directors, are general partners of Kleiner, Perkins, Caufield & Byers VII, KPCB VII Founders Fund and KPCB Information Sciences Zaibatsu Fund II. Messrs. Khosla and Hearst disclaim beneficial ownership of the securities held by such entities, except for their proportional interests in the entities.

SERIES A PREFERRED STOCK. On June 11, 1996, we sold 1,743,751 shares of our Series A Preferred Stock for \$1.00 per share. Each share of Series A Preferred Stock converted into 2.25 shares of common stock at the time of our initial public offering. The purchasers of the Series A Preferred Stock included, among others:

			AS CONVERTED
		SHARES OF	SHARES OF
PURCHASER		SERIES A STOCK	COMMON STOCK
Kleiner, Perkins, Caufield & Bye	rs VII	1,513,834	3,406,127
KPCB VII Founders Fund		165,333	371,999
KPCB Information Sciences Zaibat	su Fund II	43,056	96,876

SERIES B PREFERRED STOCK. On August 5, 1996, November 8, 1996, and December 30, 1996, we sold a total of 3,333,334 shares, 484,683 shares, and 3,958 shares, respectively, of our Series B Preferred Stock for \$2.40 per share. In addition, on December 16, 1996, and June 18, 1997, we granted warrants exercisable for 83,333 shares and 10,000 shares, respectively, of our Series B Preferred Stock at an exercise price of \$2.40. Each share of Series B Preferred Stock

converted into 2.25 shares of common stock at the time of our initial public offering. The purchasers of the Series B Preferred Stock included, among others:

	SHARES OF	AS CONVERTED SHARES OF
PURCHASER	SERIES B STOCK	COMMON STOCK
Kleiner, Perkins, Caufield & Byers VII	304,688	685,548
KPCB Information Sciences Zaibatsu Fund II	7,812	17,577
New Enterprise Associates VI, Limited		
Partnership	1,214,583	2,732,812
NEA Presidents Fund, L.P	31,250	70,313
NEA Ventures 1996, L.P	4,167	9,376
<pre>Kriens 1996 Trust U/T/A October 29, 1996</pre>	364,683	820,537
Stensrud Family Trust U/T/A September 6, 1993	120,000	270,000

New Enterprise Associates VI, Limited Partnership and NEA Presidents Fund, L.P. and NEA Ventures 1996, L.P. are affiliated entities and together are considered a holder of more than 5% of our common stock. Mr. Kramlich, one of our directors, is a partner of New Enterprise Associates VI, Limited Partnership and NEA Presidents Fund, L.P. and NEA Ventures 1996, L.P. Mr. Kramlich disclaims beneficial ownership of the securities held by these entities, except for his proportional interest in the entities. Mr. Kriens, one of our directors and executive officers and a holder of more than 5% of our common stock, is a trustee of the Kriens 1996 Trust U/T/A October 29, 1996. Mr. Stensrud, one of our directors, is a trustee of the Stensrud Family Trust U/T/A September 16, 1993.

SERIES C PREFERRED STOCK. On July 1, 1997, and September 30, 1997, we sold 4,479,286 shares and 671,892 shares, respectively, of our Series C Preferred Stock for \$8.93 per share. Each share of Series C Preferred Stock converted into 2.25 shares of common stock at the time of our initial public offering. The sale of Series C Preferred Stock included, among others, the sale of 783,875 shares of Series C Preferred Stock (1,763,718 shares as converted to common stock) to Ericsson Business Networks AB, which is a holder of more than 5% of our common stock.

SERIES D AND D-1 PREFERRED STOCK. On March 16, 1999, we sold 500,000 shares of our Series D Preferred Stock and 2,580,000 shares of our Series D-1 Preferred Stock for \$11.03 per share to Ericsson Business Networks AB. Each share of Series D Preferred Stock converted into one share of common stock at the time of our initial public offering. Each share of D-1 Preferred Stock converted into 0.38166 shares of common stock at the time of our initial public offering.

STOCK OPTION GRANTS TO CERTAIN DIRECTORS

On October 9, 1996, we granted to William Stensrud, one of our directors, an option to purchase 45,000 shares of our common stock at \$0.11 per share, which vests over four years with 1/8 of the total number of shares vesting after six months and the balance vesting in a series of monthly installments over the next 42 months of service thereafter.

INDEMNIFICATION

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements will require us to indemnify our directors and officers to the fullest extent permitted by Delaware law.

All future transactions, including any loans from us to our officers, directors, principal stockholders or affiliates, will be approved by a majority of the board of directors, including a

majority of the independent and disinterested members of the board of directors or, if required by law, a majority of disinterested stockholders, and will be on terms no less favorable to us than could be obtained from unaffiliated third parties.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table sets forth information known to us with respect to the beneficial ownership of our common stock as of June 30, 1999, and as adjusted to reflect the sale of common stock offered in this prospectus:

- each stockholder known by us to own beneficially more than 5% of our common stock, as explained below;
- each of the Named Executive Officers;
- each of our directors:
- all of our directors and executive officers as a group; and
- all other selling stockholders.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options or warrants held by that person that are currently exercisable or will become exercisable within 60 days after June 30, 1999, are deemed outstanding, while the shares are not deemed outstanding for purposes of computing percentage ownership of any other person. Unless otherwise indicated in the footnotes below, the persons and entities named in the table have sole voting or investment power with respect to all shares beneficially owned, subject to community property laws where applicable.

The number and percentage of shares beneficially owned are based on the aggregate of 49,777,014 shares of common stock outstanding as of June 30, 1999.

	SHARES OF COMMON STOCK BENEFICIALLY OWNED BEFORE SALE UNDER THIS PROSPECTUS		SHARES TO BE	TO THIS PROSPECT	
	NUMBER	PERCENTAGE	SOLD(2)	NUMBER	PERCENTAGE
OFFICERS AND DIRECTORS(1):					
Scott Kriens(3)	3,153,485	6.3%		3,153,485	6.1%
Steven Haley(4)	375,630	*		375,630	*
Pradeep Sindhu(5)	2,251,785	4.5		2,251,785	4.4
Peter Wexler(6)	676,020	1.4		676,020	1.3
Marcel Gani(7)	417,165	*		417,165	*
William Hearst(8)	10,828,125	21.8		10,828,125	21.1
c/o Kleiner, Perkins, Caufield & Byers 2750 Sand Hill Road Menlo Park, CA 94025					
Vinod Khosla(9)	10,828,125	21.8		10,828,125	21.1
C. Richard Kramlich(10)	2,812,501	5.7		2,812,501	5.2
William R. Stensrud(11)	315,000	*		315,000	*
All directors and executive officers as a group (11 persons)(12)	21,585,156	43.4		21,585,156	42.1
2750 Sand Hill Road Menlo Park, CA 94025(13) New Enterprise Associates	10,828,125	21.8		10,828,125	21.1
2490 Sand Hill Road Menlo Park, CA 94025(14) Ericsson Business Networks AB	2,812,501	5.7		2,812,501	5.2
S-131 89 Stockholm Sweden(15) SELLING STOCKHOLDERS:	3,248,401	6.5		3,248,401	6.3
Newbridge Networks Corporation	1,763,718	3.5	1,525,000	238,718	*
Lucent Technologies Inc	1,763,718	3.5	1,525,000	238,718	*
MCI WorldCom Venture Fund, Inc	1,259,799	2.5	250,000	1,009,799	2.0
Anshutz Family Investment Company LLC	599,523	1.2	200,000	399,523	*

^{*} Less than 1% of the outstanding shares of common stock.

⁽¹⁾ Unless otherwise indicated, the address of each listed stockholder is c/o Juniper Networks, Inc., 385 Ravendale Drive, Mountain View, California 94043.

⁽²⁾ Assumes no exercise of underwriters' over-allotment option. Percentage ownership figures after the offering do not include shares that may be purchased by each person in the offering.

- (3) Includes 3,152,240 shares held in the name of the Kriens 1996 Trust of which Scott Kriens and his spouse are trustees. Includes 811,934 shares subject to our right of repurchase, as of June 30, 1999, which lapses over time.
- (4) Includes 20,000 shares held in the name of the Haley Family Foundation Trust and 30,000 shares held in the name of trusts for Mr. Haley's children. Includes 183,443 shares subject to our right of repurchase as of June 30, 1999 (which lapses over time) and 27,345 shares, options for which are presently exercisable or will become exercisable within 60 days of June 30, 1999.
- (5) Includes 376,785 shares subject to our right of repurchase, as of June 30, 1999, which lapses over time. Includes 60,000 shares gifted to Mr. Sindhu's children pursuant to the California Uniform Transfer to Minors Act.
- (6) Includes 281,250 shares subject to our right of repurchase, as of June 30, 1999 (which lapses over time) and 1,020 shares, options for which are exercisable or will become exercisable within 60 days of June 30, 1999.
- (7) Includes 416,250 shares held in the name of the Gani 1995 Trust dated December 8, 1995, of which Mr. Gani and his spouse are trustees. Includes 211,853 shares subject to our right of repurchase, as of June 30, 1999 which lapses over time.
- (8) Comprised of 10,828,125 shares held by entities affiliated with Kleiner, Perkins, Caufield & Byers. Mr. Hearst is a general partner of Kleiner, Perkins, Caufield & Byers and is a director of Juniper. Mr. Hearst disclaims beneficial ownership of shares held by those entities, except to the extent of his proportional interest arising from his partnership interest in Kleiner, Perkins, Caufield & Byers.
- (9) Comprised of 10,828,125 shares held by entities affiliated with Kleiner, Perkins, Caufield & Byers. Mr. Khosla is a general partner of Kleiner, Perkins, Caufield & Byers and is a director of Juniper. Mr. Khosla disclaims beneficial ownership of shares held by those entities, except to the extent of his proportional interest arising from his partnership interest in Kleiner, Perkins, Caufield & Byers.
- (10) Comprised of 2,812,500 shares held by entities affiliated with New Enterprise Associates. Mr. Kramlich is a general partner of New Enterprise Associates and is a director of Juniper. Mr. Kramlich disclaims beneficial ownership of shares held by those entities, except to the extent of his proportional interest in New Enterprise Associates.
- (11) Includes 270,000 shares held in the name of the Stensrud Family Trust U/T/A September 16, 1993, as community property.
- (12) Includes all shares referenced in notes 3 through 11 above, except that the shares beneficially owned by Messrs. Hearst and Khosla are counted only once in this calculation. Includes 755,445 shares beneficially owned by two other executive officers and, 350,236 shares subject to our right of repurchase as of June 30, 1999 (which lapses over time) and 39,195 shares, options for which are exercisable or will become exercisable within 60 days of June 30, 1999.
- (13) Includes (i) 9,585,423 shares held by Kleiner, Perkins, Caufield & Byers VII, (ii) 972,000 shares held by KPCB VII Founders Fund, and (iii) 270,702 shares held by KPCB Information Sciences Zaibatsu Fund II.
- (14) Includes (i) 2,732,812 shares held by New Enterprise Associates VI, Limited Partnership, (ii) 70,313 shares held by NEA Presidents Fund, L.P., and
- (iii) 9,376 shares held by NEA Ventures 1996, L.P.

DESCRIPTION OF CAPITAL STOCK

GENERAL

We are authorized to issue 200,000,000 shares of common stock, \$0.00001 par value, and 10,000,000 shares of undesignated preferred stock, \$0.00001 par value. The following description of our capital stock does not purport to be complete and is subject to and qualified by our certificate of incorporation and bylaws, which are included as exhibits to the Registration Statement of which this prospectus forms a part, and by the provisions of applicable Delaware law.

COMMON STOCK

As of June 30, 1999, there were 49,777,014 shares of common stock outstanding which were held of record by approximately 300 stockholders.

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the board of directors out of funds legally available for that purpose. See "Dividend Policy." In the event of a liquidation, dissolution or winding up of Juniper Networks, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock to be issued upon the closing of this offering will be fully paid and nonassessable.

PREFERRED STOCK

The board of directors has the authority, without action by the stockholders, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, any or all of which may be greater than the rights of the common stock. We cannot state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of the common stock until the board of directors determines the specific rights of the holders of such preferred stock. However, the effects might include, among other things, restricting dividends on the common stock, diluting the voting power of the common stock, impairing the liquidation rights of the common stock and delaying or preventing a change in control of Juniper Networks without further action by the stockholders. There are no shares of preferred stock outstanding as of June 30, 1999. We have no present plans to issue any shares of preferred stock.

WARRANTS

At June 30, 1999, there were warrants outstanding to purchase a total of 240,410 shares of common stock. Subsequent to June 30, 1999, the warrants were net exercised for 237,932 shares of common stock.

REGISTRATION RIGHTS

The holders of 25,597,714 shares of common stock, as converted, and the holders of warrants to purchase 22,290 shares of common stock or their permitted transferees are entitled to certain rights with respect to registration of the shares under the Securities Act. Under the terms of the agreements between us and the holders of the registrable securities, at any time 180 days after the effective date of this offering, by written consent of at least 40% of the registrable securities then outstanding, the holders may require on one occasion that we, at our expense, file a registration statement under the Securities Act, with respect to the registrable securities, provided that at least 20% of the registrable securities would be included in the proposed registration or

the anticipated public offering price of the proposed registration would be at least \$10,000,000. In addition, holders of registrable securities may, at any time twelve months after the closing of this offering and at their expense, require on three separate occasions that we register their shares for public resale on Form S-3 or similar short-form registration, provided that we are eligible to use Form S-3 or similar short-form registration, and provided further that the value of the securities to be registered is at least \$5,000,000. Furthermore, in the event we elect to register any of our shares of common stock after this offering for purposes of effecting any public offering, the holders of registrable securities are entitled, at our expense, to include their shares of common stock in the registration, subject to the right of the underwriter to reduce the number of shares proposed to be registered in view of market conditions. The selling stockholders have exercised their right to include up to 3,977,436 shares of registrable securities in this offering. See "Principal and Selling Stockholders."

DELAWARE ANTI-TAKEOVER LAW AND CERTAIN CHARTER AND BYLAW PROVISIONS

Certain provisions of Delaware law and our certificate of incorporation and bylaws could make it more difficult to acquire us by means of a tender offer, a proxy contest or otherwise and the removal of incumbent officers and directors. These provisions, summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms.

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person became an interested stockholder, unless (with certain exceptions) the "business combination" or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns (or within three years prior to the determination of interested stockholder status, did own) 15% or more of a corporation's voting stock. The existence of this provision would be expected to have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Our certificate of incorporation and bylaws require that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of the stockholders and may not be effected by a consent in writing. In addition, special meetings of our stockholders may be called only by the board of directors or certain of our officers. Our certificate of incorporation and bylaws also provide that, beginning upon the closing of this offering, our board of directors will be divided into three classes, with each class serving staggered three-year terms, and that certain amendments of the certificate of incorporation and of the bylaws require the approval of holders of at least 66 2/3% of the voting power of all outstanding stock. These provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of Juniper Networks.

TRANSFER AGENT AND REGISTRAR

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

HOLDING COMPANY STRUCTURE

On May 13, 1999 our stockholders approved a proposal to reorganize into a holding company structure in which we would become a wholly-owned subsidiary of a new corporation which would be owned by our existing stockholders. Our board of directors subsequently decided to abandon the formation of this holding company structure. Although we currently do not have any plans to implement a holding company structure, we may at any time decide to do so. In addition, as permitted by Delaware law, we may implement this structure without submitting it to our stockholders for approval.

SHARES ELIGIBLE FOR FUTURE SALE

Upon completion of this offering, we will have outstanding 51,277,014 shares of common stock, assuming the issuance of 1,500,000 shares of common stock offered by us and no exercise of options after June 30, 1999, and assuming no exercise of the underwriters' over-allotment option. All of the 5,000,000 shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act; provided, however, that if shares are purchased by "affiliates" as that term is defined in Rule 144 under the Securities Act, their sales of shares would be subject to certain limitations and restrictions that are described below. In addition, in our recent initial public offering 5,520,000 shares of our common stock were sold and such shares are freely tradable without restriction except for the "affiliate" restrictions described immediately above.

Of the outstanding shares of common stock following this offering, 40,757,014 shares will be subject to "lock-up" agreements described below on the effective date of this offering. All of our officers and directors, as well as certain stockholders, who together in the aggregate hold 62.4% of our common stock, have agreed not to sell or otherwise dispose of any of their shares for the 90 day period following this offering. In addition, stockholders collectively holding an additional 17.1% of our outstanding common stock entered into lock-up agreements at the time of our initial public offering with the underwriters that provide that the shares set forth in the table below will become eligible for sale during the period ending December 21, 1999. Goldman, Sachs & Co., however, may in its sole discretion, at any time without notice, release all or any portion of the shares subject to lock-up agreements. The number of shares which become eligible for sale at various dates are subject in most cases to the limitations of Rule 144.

RELEVANT DATES	APPROXIMATE SHARES ELIGIBLE FOR FUTURE SALE	COMMENT
June 25, 1999 On effective date(1)	5,520,000 5,000,000	Initial public offering Shares sold in this offering (1,500,000 shares offered by us)
<pre>2 days after September 30, 1999 quarterly results are released(2)</pre>	1,316,722	Release of shares pursuant to initial public offering lockup
30 days after September 30, 1999 guarterly results are		1110101 F00110 011011113 100104
released(2)	2,194,536	Additional release of shares pursuant to initial public offering lockup
December 21, 1999(2)(3)	5,266,886	180 days after initial public offering
90 days after effective date and thereafter	31,978,870	All shares subject to lock up released

⁽¹⁾ Assumes no exercise of underwriters' over-allotment option.

⁽²⁾ Reflects the total number of shares available for release, some of which cannot be sold due to transfer restrictions imposed on the employees by us.

⁽³⁾ Reflects the total number of shares available for release, some of which cannot be sold under corporate black-out restrictions until two days following the release of the December 31, 1999 quarterly results.

In addition, holders of stock options could exercise such options and sell certain of the shares issued upon exercise as described below. As of June 30, 1999, there were a total of 5,007,695 shares of common stock subject to outstanding options under our 1996 Stock Plan, 647,146 of which were vested, and all of which are subject to lock-up agreements. The Company has filed a registration statement on Form S-8 to register all of the shares of common stock issued or reserved for future issuance under our 1996 Stock Plan, as amended, and 1999 Employee Stock Purchase Plan. On December 25, 1999, a total of 1,298,496 shares of common stock subject to outstanding options will be vested and generally would be available for resale in the public market.

RULE 144

In general, under Rule 144 as currently in effect, beginning September 22, 1999, a person who has beneficially owned shares of our common stock for at least one year would be entitled to sell, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately 512,770 shares immediately after this offering; or
- the average weekly trading volume of the common stock on the Nasdaq National Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 are also subject to certain other requirements regarding the manner of sale, notice filing and the availability of current public information about us.

RULE 144(K)

Under Rule 144(k), a person who is not deemed to have been one of our "affiliates" at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years, including the holding period of any prior owner other than an "affiliate," is entitled to sell such shares without complying with the manner of sale, notice filing, volume limitation or notice provisions of Rule 144. Therefore, unless otherwise restricted, "144(k) shares" may be sold immediately upon the completion of this offering.

RULE 701

In general, under Rule 701, any of our employees, directors, officers, consultants or advisors who purchased shares from us in connection with a compensatory stock or option plan or other written agreement before the June 24, 1999 is entitled to resell such shares beginning September 22, 1999 in reliance on Rule 144, without having to comply with certain restrictions, including the holding period, contained in Rule 144.

The SEC has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Securities Exchange Act of 1934, along with the shares acquired upon exercise of such options (including exercises after June 24, 1999). Securities issued in reliance on Rule 701 are restricted securities and, subject to the contractual restrictions described above, beginning September 22, 1999, may be sold by persons other than "affiliates," as defined in Rule 144, subject only to the manner of sale provisions of Rule 144 and by "affiliates" under Rule 144 without compliance with its one year minimum holding period requirement.

WHERE YOU MAY FIND ADDITIONAL INFORMATION

We filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act for the shares of common stock in this offering. This prospectus does not contain all of the information in the registration statement and the exhibits and schedule that were filed with the registration statement. For

further information with respect to Juniper Networks and our common stock, we refer you to the registration statement and the exhibits and schedule that were filed with the registration statement. Statements contained in this prospectus about the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and we refer you to the full text of the contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedule that were filed with the registration statement may be inspected without charge at the public reference facilities maintained by the Securities and Exchange Commission in Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, and copies of all or any part of the registration statement may be obtained from the SEC upon payment of the prescribed fee. The Securities and Exchange Commission maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the site is http://www.sec.gov.

Juniper Networks is subject to the information and periodic reporting requirements of the Securities Exchange Act of 1934, and, in accordance with the requirements of the Securities Exchange Act of 1934, files periodic reports, proxy statements and other information with the Securities and Exchange Commission. These periodic reports, proxy statements and other information will be available for inspection and copying at the regional offices, public reference facilities and web site of the Securities and Exchange Commission referred to above.

LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Certain legal matters will be passed upon for the underwriters by Brobeck Phleger & Harrison LLP, San Francisco, California. As of the date of this prospectus, WS Investment Company 96A and WS Investment Co. 96B, each an investment partnership composed of certain current and former members of and persons associated with Wilson Sonsini Goodrich & Rosati, Professional Corporation, in addition to certain current individual members of Wilson Sonsini Goodrich & Rosati, Professional Corporation, beneficially own an aggregate of 159,374 of Juniper Networks' common stock.

EXPERTS

Ernst & Young, LLP, independent auditors, have audited our consolidated financial statements at December 31, 1997 and 1998, for the period from February 2, 1996 (inception) to December 31, 1996, and for each of the two years in the period ended December 31, 1998, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given upon the authority of such firm as experts in accounting and auditing.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Ernst & Young LLP, Independent Auditors	F-2
Consolidated Balance Sheets	F-3
Consolidated Statements of Operations	F-4
Consolidated Statement of Stockholders' Equity	F-5
Consolidated Statements of Cash Flows	F-6
Notes to Consolidated Financial Statements	F-7

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders Juniper Networks, Inc.

We have audited the accompanying consolidated balance sheets of Juniper Networks, Inc. as of December 31, 1997 and 1998, and the related consolidated statements of operations, stockholders' equity, and cash flows for the period from inception (February 2, 1996) to December 31, 1996 and for each of the two years in the period ended December 31, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Juniper Networks, Inc. at December 31, 1997 and 1998, and the consolidated results of its operations and its cash flows for the period from inception (February 2, 1996) to December 31, 1996 and for each of the two years in the period ended December 31, 1998, in conformity with generally accepted accounting principles.

/s/ Ernst & Young LLP

Palo Alto, California February 26, 1999

CONSOLIDATED BALANCE SHEETS (IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

	DECEMB	DECEMBER 31,	
	1997	1998	JUNE 30, 1999
			(UNAUDITED)
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 30,442	\$ 20,098	\$ 92,429
Short-term investments	15,785		15,372
Accounts receivable		8,056	17,312
Prepaid expenses and other current assets	543	680	881
Total current assets	46,770	28,834	125,994
Property and equipment, net	3,315	7,702	9,098
Long-term investments and other assets	125	135	8,039
Total assets	\$ 50,210	\$ 36,671	\$143,131
	=======	======	=======
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	\$ 661	\$ 4,245	\$ 6,380
Accrued warranty liability		684	3,346
Accrued milestone payment	423		
Accrued compensation and related liabilities	245	1,114	1,809
Other accrued liabilities		500	1,085
Deferred revenue		5,639	12,815
Current obligations under capital leases	750 	2,220	1,201
Total current liabilities	2,079	14,402	26,636
Long-term liabilities	2,083	5,204	2,521
Commitments			
Stockholders' equity:			
Convertible preferred stock, \$0.00001 par value,			
issuable in series: 10,859 shares authorized at			
December 31, 1997 and 1998; 10,000 shares authorized			
at June 30, 1999; 10,717 shares issued and			
outstanding at December 31, 1997 and 1998, and none			
as of June 30, 1999			
Common stock, \$0.00001 par value, 67,500 shares authorized at December 31, 1997 and 1998, and 200,000			
shares authorized at June 30, 1999; 19,121, 20,577,			
and 49,777 issued and outstanding at December 31,			
1997 and 1998 and June 30, 1999		==	
Additional paid-in capital	58,210	65,351	172,106
Deferred stock compensation		(5,153)	(4,472)
Accumulated deficit	(12,162)	(43,133)	(53,660)
Stockholders' equity	46,048	17,065	113,974
	\$ 50,210	\$ 36,671	\$143,131
	\$ 50,210 ======	\$ 30,671	Ş143,131 ======

CONSOLIDATED STATEMENTS OF OPERATIONS (IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

	PERIOD FROM INCEPTION (FEBRUARY 2, 1996) TO	YEAR E DECEMBE	CR 31,	SIX MC END JUNE	DED
	DECEMBER 31, 1996	1997	1998	1998	
				UNAUD	
Net revenues Cost of revenues	\$ 	\$ 		\$ 219	
Gross profit (loss) Operating expenses:				(219)	
Research and development	1,850			9,558	
Sales and marketing			4,216		6,452
General and administrative Amortization of deferred stock	89	,	2,223		1,753
compensation			-,	213	1,795
Total operating expenses	1,939	11,598	31,661	11,833	24,172
Operating loss	(1,939) 140		(32,270) 1,301		(10,965) 560
Loss before income taxes Provision for income taxes	(1,799)	(10,363)	(30,969)	(11,106)	(10,405)
Net loss	\$(1,799) ======		\$(30,971)	\$(11,108)	\$(10,527)
Basic and diluted net loss per					
share	\$ (0.46) ======		\$ (2.39)	\$ (0.98) ======	
Shares used in computing basic and					
diluted net loss per share	3,958	8,591 =====	•	11,372	
Pro forma basic and diluted net loss per share (unaudited)			\$ (0.84)		\$ (0.26)
Shares used in computing pro forma basic and diluted net loss per share (unaudited)			37,070 =====		40,816

$\begin{array}{c} \textbf{CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY} \\ \textbf{(IN THOUSANDS)} \end{array}$

	CONVERT PREFERRED	STOCK	COMMON		ADDITIONAL	DEFERRED	ACCUMULATION	TOTAL STOCKHOLDERS'
	SHARES	AMOUNT	SHARES	AMOUNT	PAID-IN CAPITAL	COMPENSATION	ACCUMULATED DEFICIT	EQUITY
Issuance of common stock to								
founders Issuance of Series A preferred stock to investors, net of			4,050		\$ 9	\$	\$	\$ 9
issuance costs	1,744				1,738			1,738
Issuance of common stock Issuance of Series B preferred stock to investors, net of			11,844		603			603
issuance costs Issuance of Series B preferred stock in exchange for	3,818				9,157			9,157
consulting services Issuance of warrants to purchase Series B preferred	4				9			9
stock					11			11
Net loss							(1,799)	(1,799)
Balance at December 31, 1996 Issuance of warrants to	5,566		15,894		11,527		(1,799)	9,728
purchase Series B preferred stock					1			1
Issuance of Series C preferred stock to investors Issuance of warrants to	5,151				45,953			45,953
purchase Series C preferred stock					3			3
Issuance of common stock, net of repurchases			3,227		375			375
Compensation expense related to stock options					351			351
Net loss							(10,363)	(10,363)
Balance at December 31, 1997 Exercise of stock options by employees, net of	10,717		19,121		58,210		(12,162)	46,048
repurchases			1,456		753			753
Deferred stock compensation Amortization of deferred stock					6,388	(6,388)		1 225
compensation						1,235	(30,971)	1,235 (30,971)
Balance at December 31, 1998 Issuance of Series D and D-1 preferred stock to investors	10,717		20,577		65,351	(5,153)	(43,133)	17,065
(unaudited)	3,080				33,948			33,948
<pre>(unaudited) Issuance of common stock, net of issuance</pre>	(13,797)		25,598					
costs(unaudited) Exercise of common stock			2,098		65,225			65,225
warrants (unaudited) Exercise of stock options by employees, net of			22					
repurchases (unaudited) Deferred stock compensation			1,482		6,468			6,468
(unaudited) Amortization of deferred stock					1,114	(1,114)		
compensation (unaudited) Net loss (unaudited)						1,795	 (10,527)	1,795 (10,527)
							(10,527)	(10,527)
Balance at June 30, 1999 (unaudited)		\$ ====	49,777 =====	\$ ====	\$172,106 ======	\$(4,472)	\$(53,660) ======	\$113,974 ======

CONSOLIDATED STATEMENTS OF CASH FLOWS (IN THOUSANDS)

	PERIOD FROM INCEPTION (FEBRUARY 2, 1996) TO	YEAR E	ER 31,	SIX MC END JUNE	DED 30,
	DECEMBER 31, 1996	1997	1998	1998	1999
				(UNAUD	OITED)
OPERATING ACTIVITIES:	č (1 700)	å/10 2C2\	¢(20 071)	å/11 100\	č/10 F07)
Net loss Adjustments to reconcile net loss to net cash used in operating activities:	\$(1,799)	\$(10,363)	\$(30,971)	\$(11,108)	\$(10,527)
Depreciation and lease amortization	47	712	2,171	781	2,350
Amortization of prepaid maintenance contracts		238	367	24	273
Amortization of deferred stock compensation Loss on disposal of property, equipment, and		351	1,235	213	1,795
purchased software	 18	59 21	30		
Issuance of stock for consulting services Issuance of warrants in connection with certain					
leasing arrangements Changes in operating assets and liabilities:	28	14			
Accounts receivable		(600)	(8,056)	(1,644)	(9,256)
Prepaid expenses and other current assets Other long-term assets	(82) (49)	(699) (104)	(504) (10)	(250) (41)	(474) (403)
Accounts payable and other current liabilities	172	489	4,084	828	2,725
Accrued warranty liability			684		2,662
Accrued milestone payment		423	(423)	(423)	
Accrued compensation and related liabilities		245	869	252	695
Deferred revenue			5,639	1,644	7,176
Other long-term liabilities			43		
Net cash used in operating activities	(1,665)	(8,614)	(24,842)	(9,724)	(2,984)
INVESTING ACTIVITIES:					
Purchases of property and equipment, net	(864)	(3,110)	(6,531)	(2,372)	(3,746)
Purchases of short-term investments	(5,870)	(20,715)	(3,501)		(22,873)
Maturities of short-term investments		10,800	19,286	12,785	
Net cash provided by (used in) investing activities	(6,734)	(13,025)	9,254	10,413	(26,619)
FINANCING ACTIVITIES:					
Proceeds from sale leaseback liabilities	535	2,603	5,705	2,187	
Payments on lease obligations	(25)	(439)	(1,157)	(477)	(3,707)
Proceeds from issuance of preferred stock	10,895	45,953			33,948
Proceeds from issuance of common stock	592 	396	699	21	71,740
Repurchase of common stock		(30)	(3)	(3)	(47)
Net cash provided by financing activities	11,997	48,483	5,244	1,728	101,934
Net increase (decrease) in cash and cash					
equivalents Cash and cash equivalents at beginning of period	3,598 	26,844 3,598	(10,344) 30,442	2,417 30,442	72,331 20,098
Cash and cash equivalents at end of period	\$ 3,598 ======	\$ 30,442 ======	\$ 20,098 ======	\$ 32,859 ======	\$ 92,429 ======
SUPPLEMENTAL DISCLOSURES OF CASHFLOW INFORMATION					
Cash paid for interest	\$	\$ 210	\$ 592	\$ 197	\$ 331
	=====	======	======	======	======
SUPPLEMENTAL SCHEDULE OF NONCASH INVESTING AND FINANCING ACTIVITIES					
Acquisition of property and equipment	\$ 535 =====	\$ 2,243 ======	\$ 5,692 =====	\$ 863 =====	\$ ======
Deferred stock compensation	\$	\$	\$ 6,388	\$ 2,549	\$ 1,114
	======	======	======	======	======

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS

Juniper Networks, Inc. ("Juniper Networks") was incorporated in the state of California on February 2, 1996. Juniper Networks was reincorporated in the state of Delaware on March 15, 1998. Juniper Networks was established for the purpose of providing Internet infrastructure solutions to Internet service providers and other telecommunication service providers. Juniper Networks develops next generation Internet backbone routers.

From inception, in February 1996, through September 1998, Juniper Networks' operating activities were primarily devoted to increasing research and development capabilities, designing ASICs, developing software, developing and testing the M40 and other products which are currently in development, staffing the administrative, marketing and sales organizations and establishing strategic relationships. Accordingly, Juniper Networks was classified as a development stage company through that date. Juniper Networks commenced product shipments in October 1998 and therefore emerged from the development stage.

INTERIM FINANCIAL INFORMATION

The financial information at June 30, 1999 and for the six months ended June 30, 1998 and 1999 is unaudited but includes all adjustments, consisting only of normal recurring adjustments, that Juniper Networks considers necessary for a fair presentation of its financial position, operating results, and cash flows for the interim date and periods presented. Results for the six-month period ended June 30, 1999 are not necessarily indicative of the results to be expected for the entire fiscal year or future periods.

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Juniper Networks and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated.

USE OF ESTIMATES

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates.

CASH, CASH EQUIVALENTS, SHORT-TERM AND LONG-TERM INVESTMENTS

Juniper Networks considers all highly liquid investment securities with maturities from date of purchase of three months or less to be cash equivalents. Short- and long-term investments consist of debt securities with original maturities between three months and sixteen months.

Management determines the appropriate classification of debt and equity securities at the time of purchase and evaluates such designation as of each balance sheet date. To date, all marketable securities have been classified as available-for-sale and are carried at fair value with material unrealized gains and losses, if any, included in stockholders' equity. Unrealized gains and losses were not material for all periods presented. Realized gains and losses and declines in value of securities judged to be other than temporary are included in interest income. Interest and dividends on all securities are included in interest income.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

CONCENTRATIONS

Financial instruments that potentially subject Juniper Networks to concentrations of credit risk consist principally of investments in debt securities and trade receivables. Juniper Networks is exposed to credit risks in the event of default by the financial institutions or issuers of investments to the extent recorded on the balance sheet. Juniper Networks generally does not require collateral. For the year ended December 31, 1998, two customers, A and B, accounted for 78% and 22% of Juniper Networks' net revenues. For the six months ended June 30, 1999, two customers, A and C, accounted for 35% and 27% of Juniper Networks' net revenues.

Juniper Networks receives certain custom semiconductor chips from a sole supplier. Additionally, Juniper Networks relies on one hardware manufacturer for the production of its product. The inability of the supplier or manufacturer to fulfill supply requirements of Juniper Networks could negatively impact future results.

FAIR VALUE OF FINANCIAL INSTRUMENTS

The fair value of Juniper Networks' short-term and long-term investments is based on quoted market prices. The carrying value of those investments approximates their fair value.

The fair value of short-term and long-term capital lease obligations is estimated based on current interest rates available to Juniper Networks for debt instruments with similar terms, degrees of risk, and remaining maturities. The carrying values of these obligations approximate their respective fair values.

PROPERTY AND EQUIPMENT

Property and equipment, including equipment leased under capital leases, are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are provided on a straight-line basis over the lesser of the estimated useful life, generally three to five years, or the lease term of the respective assets.

REVENUE RECOGNITION

Juniper Networks generally recognizes product revenue at the time of shipment, assuming that collectibility is probable, unless Juniper Networks has future obligations for installation or has to obtain customer acceptance in which case revenue is deferred until these obligations are met. Revenue from service obligations is deferred and recognized on a straight-line basis over the contractual period. Amounts billed in excess of revenue recognized are included as deferred revenue in the accompanying consolidated balance sheets.

WARRANTY RESERVES

Juniper Networks' product generally carries a one-year warranty that includes factory repair services as needed for replacement of parts. Estimated expenses for warranty obligations are accrued when revenue is recognized.

RESEARCH AND DEVELOPMENT

Costs to develop Juniper Networks' products are expensed as incurred in accordance with the Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 2, "Accounting for Research and Development Costs," which establishes accounting and reporting standards for research and development.

COMPREHENSIVE INCOME

Effective January 1, 1998, Juniper Networks adopted Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income" (FAS 130). Juniper

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

Networks has no material components of other comprehensive income and accordingly the comprehensive loss is the same as net loss for all periods presented.

STOCK-BASED COMPENSATION

Juniper Networks accounts for its stock options and equity awards in accordance with the provisions of the Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and has elected to follow the "disclosure only" alternative prescribed by Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" (FAS 123).

NET LOSS PER SHARE

Basic net loss per share and diluted net loss per share are presented in conformity with Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 128, "Earnings Per Share" (FAS 128), for all periods presented. Pursuant to the Securities and Exchange Commission Staff Accounting Bulletin No. 98, common stock and convertible preferred stock issued or granted for nominal consideration prior to the anticipated effective date of the initial public offering must be included in the calculation of basic and diluted net loss per common share as if they had been outstanding for all periods presented. To date, Juniper Networks has not had any issuances or grants for nominal consideration.

In accordance with FAS 128, basic and diluted net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period, less the weighted average number of shares of common stock issued to founders, investors and employees that are subject to repurchase (see Notes 5 and 6). Basic and diluted pro forma net loss per share, as presented in the consolidated statements of operations, has been computed as described above and also gives effect to the conversion of the convertible preferred stock (using the if-converted method) from the original date of issuance, using the initial public offering price of \$34.00 per share to calculate the conversion ratio for Series D-1 convertible preferred stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

The following table presents the calculation of basic and diluted and pro forma basic and diluted net loss per share (in thousands, except per share data):

	PERIOD FROM INCEPTION (FEBRUARY 2, 1996) TO DECEMBER 31,	YEAR E DECEMBE	ER 31,	SIX MC ENE JUNE	DED 30,
	1996	1997	1998	1998	1999
				UNAUD (
Net loss	\$(1,799) ======	\$(10,363)	\$(30,971) ======		
Basic and diluted: Weighted-average shares of common stock outstanding	11,030	18,623			
Less: weighted-average shares subject to repurchase	(7,072)	(10,032)	(6,734)	(7,785)	(5,675)
Weighted-average shares used in computing basic and diluted net loss per		0.501	10.055	11 250	16 426
share	3,958	8,591	12,957	•	•
Basic and diluted net loss					
per share	\$ (0.46) ======	\$ (1.21) ======	\$ (2.39)		
Pro forma:					
Net loss			\$(30,971) ======		\$(10,527) ======
Shares used above Pro forma adjustment to reflect weighted effect of assumed conversion of convertible preferred			12,957		16,436
stock			24,113		24,380
Shares used in computing pro forma basic and diluted net loss per common share					
(unaudited)			37,070 =====		40,816
Pro forma basic and diluted net loss per common share (unaudited)			\$ (0.84)		\$ (0.26)

Juniper Networks has excluded all convertible preferred stock, warrants for convertible preferred stock, outstanding stock options and shares subject to repurchase from the calculation of diluted loss per share because all such securities are antidilutive for all periods presented. The total number of shares excluded from the calculations of diluted net loss per share were 10,810,000, 28,937,000, 33,923,000, 34,219,000 and 34,113,000 for the period from inception (February 2, 1996) through December 31, 1996 for the two years ended December 31, 1997 and 1998 and for the six months ended June 30, 1998 and 1999, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

SEGMENT INFORMATION

Effective January 1, 1998, Juniper Networks adopted the Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 131, "Disclosures About Segments of an Enterprise and Related Information" (FAS 131). FAS 131 changes the way companies report financial and descriptive information about reportable operating segments in annual financial statements and interim financial reports issued to stockholders. Juniper Networks operates solely in one segment, the development and marketing of Internet infrastructure equipment, and therefore there is no impact to Juniper Networks' consolidated financial statements due to the adoption of FAS 131. Approximately, \$4.4 million of Juniper Networks' net revenues in the six-months ended June 30, 1999 were from export sales. These sales primarily were made to Europe and Asia. The operations and assets of Juniper Networks' foreign subsidiaries were immaterial in all periods presented.

RECENT ACCOUNTING PRONOUNCEMENTS

In March 1998, the American Institute of Certified Public Accountants issued Statement of Position 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use" (SOP 98-1). SOP 98-1 requires that entities capitalize certain costs related to internal-use software once certain criteria have been met. Juniper Networks adopted SOP 98-1 in January 1999, with no material impact on its consolidated financial position, results of operations, or cash flows.

In April 1998, the American Institute of Certified Public Accountants issued Statement of Position 98-5, "Reporting on the Costs of Start-Up Activities" (SOP 98-5). SOP 98-5, which is effective for fiscal years beginning after December 31, 1998, provides guidance on the financial reporting of start-up costs and organization costs. It requires the costs of start-up activities and organization costs to be expensed as incurred. Juniper Networks adopted SOP 98-5 in January 1999, with no significant impact on consolidated operating results, financial position or cash flows.

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities" (FAS 133), which will be effective for the fiscal year ended December 31, 2000. This statement establishes accounting and reporting standards requiring that every derivative instrument, including certain derivative instruments embedded in other contracts, be recorded in the balance sheet as either an asset or liability measured at its fair value. The statement also requires that changes in the derivative's fair value be recognized in earnings unless specific hedge accounting criteria are met. Juniper Networks has not evaluated the impact of FAS 133, however, it believes the adoption of FAS 133 will not have a material effect on the financial position, consolidated results of operations, or cash flows as Juniper Networks has not entered into any derivative contracts.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

2. CASH EQUIVALENTS, SHORT-TERM AND LONG-TERM INVESTMENTS

Cash equivalents, short-term and long-term investments consist of the following (in thousands):

	DECEMB				
	1997	1997 1998		JUN 1997 1998 1	
			(UNAUDITED)		
Money market funds	\$ 14,351	\$ 3,037	\$ 84,563		
Commercial paper	12,536	16,520			
Government securities	9,205				
Corporate debt securities	7,061		24,403		
Municipal bonds			5,000		
Certificates of deposit	3,066		·		
Total available-for-sale investments	46,219	19,557	113,966		
Less amounts classified as cash equivalents	(30,434)	(19,557)	(91,093)		
Total investments	\$ 15,785	\$	\$ 22,873		
	=======	=======	=======		

3. PROPERTY AND EQUIPMENT, NET

Property and equipment consist of the following (in thousands):

	DECEMBER 31,	
	1997	
Computers and equipment	\$2,242 1,394 424	\$ 7,435 2,540 594
Total Less accumulated depreciation and lease amortization	4,060 (745)	10,569 (2,867)
Property and equipment, net	\$3,315 =====	\$ 7,702 ======

4. CAPITAL LEASE OBLIGATIONS

Juniper Networks enters into various capital leases, including sale and leaseback transactions, to finance purchases of property, equipment and software. As of December 31, 1997 and 1998, under various lease lines of credit, Juniper Networks had \$4,861,000 and \$1,891,000 available for future purchases of property and equipment that expired June 30, 1999. Under the terms of certain lease agreements, warrants to purchase the Company's preferred stock have been granted as described in Note 5. Capitalized costs of \$2,778,000 and \$8,470,000, and accumulated amortization of \$690,000 and \$905,000 are included in property and equipment at December 31, 1997 and 1998.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

Future minimum payments under capital leases consist of the following (in thousands):

	AS OF DECEMBER 31, 1998
1999	\$ 2,974
2000. 2001. 2002.	2,859 2,449 582
Total minimum lease payments	8,864 (1,483)
Present value of net minimum lease payments Less current portion	7,381 (2,220)
Long-term portion	\$ 5,161 ======

5. STOCKHOLDERS' EQUITY

CONVERTIBLE PREFERRED STOCK

		SHARES ISSUED AND OUTSTANDING AT			
	GUADEG	DECEMB	ER 31,	TIME 20	
	SHARES AUTHORIZED	1997	1998	JUNE 30, 1999	
				(UNAUDITED)	
Series A	1,743,751	1,743,751	1,743,751	0	
Series B	3,915,308	3,821,975	3,821,975	0	
Series C	5,200,000	5,151,178	5,151,178	0	
Series D (unaudited)	600,000			0	
Series D-1 (unaudited)	2,580,000			0	
Total preferred stock	14,039,059	10,716,904	10,716,904	0	
	========	========	========	===	

Holders of Juniper Networks' preferred stock are entitled to one vote for each share of common stock into which the preferred stock is convertible. Holders of Juniper Networks' preferred stock shall also be entitled to vote separately as a class with regard to customary protective provisions.

The stockholders of Series A, B, and C preferred stock are entitled to annual noncumulative dividends per share of \$0.05, \$0.12, and \$0.45 when and if declared by the board of directors. Under the terms of certain lease agreements, Juniper Networks is prohibited from declaring or paying any dividends on its capital stock. In the event of any voluntary or involuntary liquidation of Juniper Networks, Series A, B, and C stockholders are entitled to a liquidation preference per share of \$1.00, \$2.40, and \$8.93 plus any declared but unpaid dividends, all in preference to the holders of the common stock. Upon the completion of this distribution, the holders of the common stock will receive any and all remaining assets of Juniper Networks.

The stockholders of Series A, B, and C preferred stock have the right at any time after the date of issuance to convert each of their shares into 2.25 shares of common stock, which equals the initial offering price per share of Series A, B, and C preferred stock of \$1.00, \$2.40 and \$8.93, respectively,

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

divided by \$0.4444, \$1.07, and \$3.97. Each of these conversion rates is subject to adjustments for dilution. Each share of preferred stock shall be automatically converted into shares of common stock at the then effective conversion rate upon (a) the closing of the issuance of shares following the effectiveness of a registration statement under the Securities Act of 1933, pursuant to a firm commitment public offering of Juniper Networks' common stock at a price per share of not less than three times the applicable conversion price for the Series A and B preferred stock and at a price per share of not less than one-and-a-half times the then applicable conversion price for the Series C preferred stock, subject to adjustments for dilution, with aggregate proceeds in excess of \$10,000,000 or (b) the affirmative vote of the holders of 66 2/3 of the then outstanding shares of preferred stock.

See description of Series D and D-1 preferred stock in Note 10. At the time of Juniper Networks' initial public offering, all outstanding shares of preferred stock converted into 25,598,000 shares of common stock. No shares of preferred stock were outstanding at June 30, 1999.

WARRANTS

Juniper Networks periodically grants warrants in connection with certain lease arrangements. Juniper Networks had the following warrants to purchase shares of preferred stock outstanding at December 31, 1998 and to purchase shares of common stock outstanding at June 30, 1999:

DECEMBER 31, 1998 NUMBER OF SHARES (PREFERRED STOCK)	PREFERRED STOCK SERIES	EXERCISE PRICE PER SHARE	DATE ISSUED	EXPIRATION OF WARRANTS
83,333	Series B	\$2.40 2.40 8.93	December 1996 June 1997 June 1997	December 2003 December 2003 December 2003
116,849				
JUNE 30, 1999 (UNAUDITED) NUMBER OF SHARES (COMMON STOCK)		EXERCISE PRICE PER SHARE	DATE ISSUED	EXPIRATION OF WARRANTS
187,499 52,911		\$1.07 3.97	December 1996 June 1997	December 2003 December 2003
240,410				

All of the outstanding warrants are exercisable immediately. The fair value of the warrants are amortized as interest expense over the life of the respective lease arrangements.

COMMON STOCK

Juniper Networks is authorized to issue up to 200,000,000 shares of its common stock. At December 31, 1997 and 1998 and June 30, 1999, 19,121,347, 20,577,328, and 49,777,014 shares were issued and outstanding. Prior to the adoption of the 1996 Stock Option Plan (see Note 6), Juniper Networks issued shares of common stock to founders, investors, and employees. The shares issued to investors were fully vested

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

upon purchase. Generally, shares issued to founders and employees were sold pursuant to restricted stock purchase agreements containing provisions established by the board of directors. These provisions give Juniper Networks the right to repurchase the shares at the original sales price. This right expires at the rate of 25% after one year and 2.0833% per month thereafter. At December 31, 1997 and 1998 and June 30, 1999, 2,564,063, 1,382,813, and 642,188 of these shares, issued outside of the 1996 Stock Option Plan, remained subject to repurchase. See Note 6 for shares subject to repurchase under the 1996 Stock Option Plan.

Juniper Networks effected a three-for-two stock split of its common stock on June 27, 1997 and October 2, 1998. All share and per share amounts have been adjusted to reflect the splits.

Common stock reserved for future issuance consists of the following:

	DECEMBER 31, 1998	JUNE 30, 1999
Common stock reserved for:		(UNAUDITED)
Conversion of preferred stock	24,113,034	
warrants	262,910	
Exercise of common stock warrants	 6,663,292	240,410 8,181,683
Employee stock purchase plan		500,000
Total common stock reserved for future issuance	31,039,236	8,922,093
	========	=======

6. STOCK OPTION PLAN

Juniper Networks' 1996 Stock Option Plan (the "Plan") provides for the granting of incentive stock options to employees and nonstatutory stock options to employees, directors and consultants. Incentive stock options are granted at an exercise price of not less than the fair value per share of the common stock on the date of grant as determined by the board of directors. Nonstatutory stock options are granted at an exercise price of not less than 85% of the fair value per share on the date of grant as determined by the board of directors. Options granted to consultants are in consideration for the fair value of services previously rendered and are not contingent upon future events. No options have been granted to consultants to date. Vesting and exercise provisions are determined by the board of directors. Options granted under the Plan generally become exercisable over a four-year period beginning on the date of grant. Options granted under the Plan have a maximum term of ten years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

Option activity under the Plan is summarized as follows:

OUTSTANDING	PMOTTONS	

	NUMBER	PRICE PER	WEIGHTED-AVERAGE		
	OF SHARES	SHARE	EXERCISE PRICE		
Options granted	1,797,750	\$0.11 to \$ 0.40	\$ 0.22		
Balance at December 31, 1997	1,797,750	0.11 to 0.40	0.22		
Options granted	3,512,480	0.53 to 4.90	1.86		
Options exercised	(1,507,316)	0.11 to 4.90	0.49		
Options canceled	(121,676)	0.11 to 1.67	0.27		
Balance at December 31, 1998	3,681,238	0.11 to 4.90	1.67		
Options granted (unaudited)	3,085,087	8.80 to 28.00	18.13		
Options exercised (unaudited)	(1,627,590)	0.11 to 21.00	3.98		
Options canceled (unaudited)	(131,040)	0.40 to 21.00	11.29		
Balance at June 30, 1999 (unaudited)	5,007,695	0.11 to 28.00	10.59		
	========				

The Plan also provides for the sale of shares of common stock to employees and consultants at the fair value per share of the common stock as determined by the board of directors. Shares issued to consultants are for the fair value of services previously rendered and are not contingent upon future events. Shares sold to employees are made pursuant to restricted stock purchase agreements containing provisions established by the board of directors. These provisions give Juniper Networks the right to repurchase the shares at the original sales price. This right expires at a rate determined by the board of directors, generally at the rate of 25% after one year and 2.0833% per month thereafter.

During the period from inception (February 2, 1996) to December 31, 1996 and the year ended December 31, 1997, Juniper Networks issued 4,840,884 and 3,572,433 shares under the Plan. No shares were issued under the Plan in the year ended December 31, 1998 and the six month period ended June 30, 1999. At December 31, 1997 and 1998 and June 30, 1999, 6,340,994, 4,685,104, and 4,728,716 shares were subject to repurchase rights under the Plan. At December 31, 1997, December 31, 1998 and June 30, 1999, 345,095, 396,425 and 542,405 shares, respectively, had been repurchased under the Plan.

Juniper Networks has reserved 16,187,500 shares of common stock for issuance under the Plan. At December 31, 1998, 2,982,054 shares were available for future option grants or stock sales under the Plan. At June 30, 1999, 3,173,988 shares were available for future option grants or stock sales under the Plan.

In 1997, Juniper Networks recorded compensation expense of \$351,000 representing the difference between the deemed fair value and the exercise price of certain option grants made during the year.

During the year ended December 31, 1998 and the three months ended March 31, 1999, in connection with the grant of certain stock options to employees, Juniper Networks recorded deferred stock compensation of \$6,388,000 and \$1,114,000 representing the difference between the exercise price and the deemed fair value of Juniper Networks' common stock on the date such stock options were granted. Such amount is included as a reduction of stockholders' equity and is being amortized by charges to operations on a graded vesting method. Juniper Networks recorded amortization of deferred stock compensation expense of \$1,235,000 for the year ended December 31, 1998 and \$1,795,000 for the six months ended June 30, 1999. At

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

December 31, 1998 and June 30, 1999, Juniper Networks had a total of \$5,153,000 and \$4,472,000 remaining to be amortized over the corresponding vesting period of each respective option, generally four years. The amortization expense relates to options awarded to employees in all operating expense categories. This amount has not been separately allocated to these categories.

STOCK-BASED COMPENSATION

The Company has elected to follow APB 25 and related interpretations in accounting for its employee stock-based compensation plans. Because the exercise price of Juniper Networks' employee stock options equals the market price of the underlying stock on the date of grant, no compensation expense was recognized.

Pro forma information regarding net loss has been determined as if Juniper Networks had accounted for its employee stock options under the fair value method prescribed by FAS 123. The resulting effect on pro forma net loss disclosed is not likely to be representative of the effects on net (loss) on a pro forma basis in future years, due to subsequent years including additional grants and years of vesting.

The fair value of each option granted through June 30, 1999 was estimated on the date of grant using the Black-Scholes method with the following weighted-average assumptions:

	INCEPTION (FEBRUARY 2, 1996) TO DECEMBER 31,		ENDED ER 31,	SIX MONTHS ENDED JUNE 30,			
	10 DECEMBER 31, 1996	•		1998	1999		
				UNAU)	DITED)		
Dividend yield							
Volatility factor Risk-free interest					.6		
rate	6.20%	6.20%	5.23%	5.23%	5.23%		
Expected life Weighted average fair value of options granted in the	4.5 years	4.5 years	4.5 years	4.5 years	4.0 years		
period	\$0.02	\$0.03	\$0.37	\$0.15	\$9.01		

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

For purposes of pro forma disclosures, the estimated fair value of options is amortized to pro forma expense over the options' vesting period. Pro forma information follows (in thousands, except per share amounts):

	PERIOD FROM INCEPTION (FEBRUARY 2, 1996) TO DECEMBER 31,		R 31,	·		
	1996		1998	1998	1999	
				(UNAUDITED)		
Net Loss:						
As reported	\$(1,799)	\$(10,363)	\$(30,971)	\$(11,108)	\$(10,527)	
Pro forma	(1,805)	(10,403)	(31,143)	(11, 154)	(12,082)	
Basic and Diluted Net Loss Per Share:						
As reported	(0.46)	(1.21)	(2.39)	(0.98)	(0.64)	
Pro forma	(0.46)	(1.21)	(2.40)	(0.98)	(0.74)	

7. 401(k) PLAN

Juniper Networks maintains a savings and retirement plan under Section 401(k) of the Internal Revenue Code. All employees are eligible to participate on their first day of employment with Juniper Networks. Under the plan, employees may contribute up to 20% of their pretax salaries per year but not more than the statutory limits. Juniper Networks does not contribute to the plan.

8. COMMITMENTS

Juniper Networks leases its facilities under operating leases that expire in 2001. Rental expense for the period from inception (February 2, 1996) to December 31, 1996 and for the years ended December 31, 1997 and 1998, were \$145,000, \$529,000, and \$937,000.

Future minimum payments under the noncancellable operating leases consist of the following (in thousands):

	DECEMBER 31, 1998	JUNE 30, 1999
1999	\$1,422	(UNAUDITED) \$ 872
2000	1,071	3,692
2001	721	4,418
2002		4,572
2003	==	4,733
Thereafter		46,970
Total minimum lease payments	\$3,214	\$65,257
	=====	======

Juniper Networks has outstanding purchase order commitments for materials of approximately \$2,442,000 at December 31, 1998 and \$2,600,000 at June 30, 1999. Juniper Networks expects the purchase orders to be fulfilled in 1999. Of this amount, Juniper Networks has accrued approximately \$295,000 and \$120,000 of the outstanding commitments for obsolete inventory as of December 31, 1998 and June 30, 1999. These

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

expenses are included within cost of revenue in the year ended December 31, 1998 and the six months ended June 30, 1999.

9. INCOME TAXES

Due to operating losses and the inability to recognize the benefits therefrom, there is no provision for income taxes for the period from inception (February 2, 1996) to December 31, 1996, or for the years ended December 31, 1997, and 1998.

Significant components of Juniper Networks' deferred tax assets as of December 31, 1997 and 1998 are as follows (in thousands):

	DECEMB	ER 31,
	1997	1998
Deferred tax assets:		
Net operating loss carryforwards	\$ 4,600	\$ 13,470
Research credit carryforwards	600	1,490
Deferred revenue		2,700
Other temporary differences		390
Total deferred tax assets	5,200	18,050
Valuation allowance	-,	
valuation allowance	(5,200)	(18,050)
Net deferred tax assets		\$
Net defelled tax assets	ې	ې
	======	=======

FASB Statement No. 109 provides for the recognition of deferred tax assets if realization of such assets is more likely than not. Based upon the weight of available evidence, which includes Juniper Networks' historical operating performance and the reported cumulative net losses in all prior years, Juniper Networks has provided a full valuation allowance against its net deferred tax assets.

The net valuation allowance increased by \$5,200,000 during the year ended December 31, 1997.

At December 31, 1998, Juniper Networks had net operating loss carryforwards for federal and California tax purposes of approximately \$34,000,000 and \$33,000,000. Juniper Networks also had federal and state research and development tax credit carryforwards of approximately \$950,000 and \$815,000. The net operating loss and tax credit carryforwards will expire at various dates beginning in 2004, if not utilized.

Utilization of net operating loss and credit carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of the net operating loss and credit carryforwards before utilization.

10. EVENTS SUBSEQUENT TO DATE OF AUDITOR'S REPORT

1999 EMPLOYEE STOCK PURCHASE PLAN

In April 1999, the board of directors approved the adoption of Juniper Networks' 1999 Employee Stock Purchase Plan (the "purchase plan"). A total of 500,000 shares of common stock has been reserved for issuance under the 1999 purchase plan, plus, commencing on January 1, 2000, annual increases equal to the lesser of 500,000 shares, 1% of the outstanding common shares on such date or a lesser amount determined by the board of directors. The purchase plan permits eligible employees to

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

acquire shares of Juniper Networks' common stock through periodic payroll deductions of up to 10% of base compensation. No more than 1,000 shares may be purchased by each employee in any twelve month period, and in no event, may an employee purchase more than \$25,000 worth of stock, determined at the fair market value of the shares at the time such option is granted, in one calendar year. The purchase plan will be implemented in a series of offering periods, each approximately six months in duration; provided, however, that the first offering period will be approximately thirteen months in duration, ending on the last trading day on or before July 31, 2000. The price at which the common stock may be purchased is 85% of the lesser of the fair market value of Juniper Network's common stock on the first day of the applicable offering period or on the last day of the respective purchase period. The initial offering period will commence on the effectiveness of the initial public offering and will end on July 31, 2000.

ISSUANCE OF SERIES D AND D-1 CONVERTIBLE PREFERRED STOCK

In March 1999, Juniper Network's board of directors approved an increase in the authorized number of shares of preferred stock to 14,039,059 shares.

In March 1999, the Company issued 500,000 shares of Series D preferred stock and 2,580,000 shares of Series D-1 preferred stock at \$11.03 per share, resulting in cash proceeds of \$33,972,400.

Holders of Juniper Networks' Series D and D-1 preferred stock are entitled to one vote for each share of common stock into which the preferred stock is convertible. Holders of Juniper Networks' preferred stock shall also be entitled to vote separately as a class with regard to customary protective provisions.

The holders of Series D and D-1 preferred stock are entitled to annual noncumulative dividends per share of \$0.55 per share when and if declared by the board of directors. In the event of any voluntary or involuntary liquidations of Juniper Networks, Series D and D-1 shareholders are entitled to a liquidation preference per share of \$11.03 per share plus any declared but unpaid dividends, all in preference to the holders of the common stock. Upon the completion of this distribution, the holders of the common stock will receive any and all remaining assets of Juniper Networks.

The holders of Series D and D-1 preferred stock have the right at any time after the date of issuance to convert each of their shares into a number of shares of common stock determined by dividing the initial offering price per share of the Series D and D-1 preferred stock by the conversion price, which is \$11.03. This conversion rate is subject to adjustments for dilution. Each share of preferred stock shall be automatically converted into shares of common stock at the then effective conversion rate upon (a) the closing of the issuance of shares following the effectiveness of a registration statement under the Securities Act of 1933, pursuant to a firm commitment offering of Juniper Networks' common stock at a price per share of not less than three times the applicable conversion rate for the Series A and B preferred stock, a price per share of not less than one-and-a-half times the then applicable conversion rate for the Series C preferred stock, and a price per share of not less than one times the then applicable conversion rate for the Series D and D-1 preferred stock, subject to adjustments for dilution, with aggregate proceeds in excess of \$10,000,000 or (b) the affirmative vote of the holders of 66 2/3 of the then outstanding shares of preferred stock.

If within one hundred and eighty days of the original issue date of the Series D-1 preferred stock Juniper Networks files a registration statement under the Securities Act of 1933 covering an underwritten initial

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

public offering, the Series D-1 conversion rate will be modified to equal the original issue price per share of the Series D-1 preferred stock divided by 85% of the initial public offering price. If, between 180 days and one year from the original issue date of the Series D-1 preferred stock, Juniper Networks files a registration statement under the Securities Act of 1933 covering an underwritten initial public offering, the Series D-1 conversion rate will be modified to equal the original issue price per share of the Series D-1 preferred stock divided by 75% of the initial public offering price. If, between one year and fifteen months from the original issue date of the Series D-1 preferred stock, Juniper Networks files a registration statement under the Securities Act of 1933 covering an underwritten initial public offering price. If Juniper Networks files a registration statement under the Securities Act of 1933 covering an underwritten initial public offering after 15 months from the original issue date of the Series D-1 preferred stock there will be no adjustment to the Series D-1 conversion rate.

AMENDMENT TO 1996 STOCK OPTION PLAN

On April 19, 1999, the board of directors approved the following amendments to the 1996 Stock Option Plan:

- (i) The number of shares reserved for issuance under the Plan was increased by 3,000,000 to 19,187,500 shares.
- (ii) An annual increase to the Plan will be added on the first day of each fiscal year, beginning in 2000, equal to the lesser of (1) 3,000,000 shares, (2) 5% of the outstanding shares on that date, or (3) a lesser amount determined by the board of directors.

UNDERWRITING

Juniper Networks, the selling stockholders and the underwriters for this offering named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co., Credit Suisse First Boston Corporation, BancBoston Robertson Stephens Inc., Dain Rauscher Wessels, a division of Dain Rauscher Incorporated, SG Cowen Securities Corporation and Warburg Dillon Read LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman, Sachs & Co Credit Suisse First Boston Corporation. BancBoston Robertson Stephens Inc. Dain Rauscher Wessels. SG Cowen Securities Corporation. Warburg Dillon Read LLC.	
Total	

If the underwriters sell more shares than the total number set forth in the table above, the underwriters have an option to buy up to an additional 272,564 shares from Juniper Networks and an option to buy an additional 477,436 shares from the selling stockholders to cover such sales. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and the underwriting discounts and commissions to be paid to the underwriters by Juniper Networks and the selling stockholders. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 750,000 additional shares.

Paid by Juniper Networks

	No Exercise	Full Exercise
Per Share	\$	\$
Total	\$	\$

Paid by the Selling Stockholders

	No Exercise	Full Exercise
Per Share	\$	\$
Total	\$	\$

Shares sold by the underwriters to the public will initially be offered at the initial price to public set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ per share from the initial price to public. Any such securities dealers may resell any shares purchased from the underwriters to certain other brokers or dealers at a discount of up to \$ per share from the initial price to public. If all the shares are not sold at the initial price to public, the representatives may change the offering price and the other selling terms.

Juniper Networks, the officers, the directors and certain stockholders who hold 5% or more beneficial interests in Juniper Networks' common stock have agreed with the underwriters not to dispose of or hedge any of their shares of common stock or securities convertible into or exchangeable for shares of

common stock during the period from the

date of this prospectus continuing through the date 90 days after the date of this prospectus except with the prior written consent of the representatives. In addition, certain other stockholders entered into lock up agreements in connection with Juniper Networks' initial public offering. See "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on the Nasdaq National Market, in the over-the-counter market or otherwise.

As permitted by Rule 103 under the Exchange Act, certain underwriters (and selling group members, if any) that are market makers ("passive market makers") in the common stock may make bids for or purchases of common stock in the Nasdaq National Market until a stabilizing bid has been made. Rule 103 generally provides:

- a passive market maker's net daily purchases of the common stock may not exceed 30% of its average daily trading volume in such securities for the two full consecutive calendar months, or any 60 consecutive days ending within the 10 days, immediately preceding the filing date of the registration statement of which this prospectus forms a part,
- a passive market maker may not effect transactions or display bids for the common stock at a price that exceeds the highest independent bid for the common stock by persons who are not passive market makers, and
- bids made by passive market makers must be identified as such.

Juniper Networks estimates that the total expenses of the offering payable by Juniper Networks, excluding the underwriting discounts and commissions, will be approximately \$.

Juniper Networks and the selling stockholders have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.



APPENDIX -- DESCRIPTION OF GRAPHICS

PROSPECTUS COVER

Juniper Networks, Inc. Logo

INSIDE FRONT COVER

A diagram that shows the M40 providing the critical links in the Internet backbone to the fiber optic core of a Service Provider's Network. Four different links showing the M40 and other pictures are depicted with the tag lines as follows: 1) The hub of the diagram has the tag line "Controlling the Fiber-Optic Core"; "Connecting the Service Provider" and "Servers"; 2) "Concentrating Network Access," "Home" and "Business"; 3) "Managing Exploding Traffic Demands," "Cyber Cafe," "ATM" and "Cellular"; 4) "Differentiated Services for Multimedia Applications," and "Multimedia Web Pages,"; 5) At the bottom of the page is the text "Juniper Networks M40 Internet backbone routers are linking users and applications across the new public network."

PAGE 32

Diagram showing areas of bottleneck when packet/cell switching and fiber optic technologies are deployed together. The left side of the diagram is labeled "Electronic Packet/Cell Switching" above pictures of computers. To the right of the diagram is the text "Electronic Packet/Cell Switching" above pictures of servers which are labeled "Servers." Between these pictures are links labeled "Fiber Optic Core" and the text "Bottleneck" at the edges of the Fiber Optic Core links.

PAGE 35

Diagram showing a typical architecture for a service provider's network backbone, including the placement of network routes, switches and access concentration points. Diagram contains the text "Enterprise Routers," "DS3," "DS1," "DS0," "OC-12," "OC-3," "ATM," "OC-12 ATM or OC-12 SONET or OC-48 SONET," "Core Backbone," "Intra-POP," "Access," "Router," "Switch" and "Access Concentration Point."

PAGE 38

Diagram showing traffic path between router points labeled "San Francisco" and "New York." Below the diagram is a legend of icons in the diagram which are labeled "Shortest path," "Traffic Engineered Path" and "Router."

PAGE 40

Diagram showing the JUNOS Routing Engine with the text "Forwarding Table" contained in the diagram. Also includes a diagram below this diagram of the Packet Forwarding Engine containing the text "Forwarding Table," "Internet Processor," "Memory-based Switch Fabric" and "I/O Card."

PAGE 42

Picture of our M40 Internet backbone router together with a data table of rack configuration information. The data table includes the following configuration data:

Interface	Ports Per M40	Ports per 7ft. Rack
OC-48 STM-16 SONET/SDH	8	16
OC-12/STM-4 ATM	32	64
OC-12/STM-4 SONET/SDH	32	64
OC-3/STM-1 ATM	64	128
OC-3/STM-1 SONET/SDH	128	256
DS3	128	256
Gigabit Ethernet	32	64

INSIDE BACK COVER

A diagram showing a photograph of our M40 Internet backbone with the three critical ASIC components of the M40. Surrounding the photo of the M40 is the following text listed in counter clockwise order starting from the top: 1) "Purpose-built wire speed system for scaling the new public network growth"; 2) "Using the IP infrastructure to manage our business of delivering the new public network"; 3) "Services for

customers to harness technology for competitive advantage"; 4) "creating the fiber optic new public network with greater bandwidth and richer
services"; and 5) "JUNOS Internet Software for traffic engineering, network optimization and control." Also includes a diagram on the lower
left hand portion showing the JUNOS Routing Engine with the text "Forwarding Table" contained in the diagram. To the right of this diagram
is the text "Routing Engine uses knowledge of network to construct a forwarding table." Also includes a diagram below this diagram of the
Packet Forwarding Engine containing the text "Forwarding Table," "Internet Processor," "Memory-based Switch Fabric" and "I/O Card." To
the right of this diagram is the text "Packet Forwarding Engine (PFE) directs packets from an input interface to an output interface based on the
forwarding table."

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Juniper Networks, Inc. Logo		

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

TABLE OF CONTENTS

	Pag
Prospectus Summary	3
Risk Factors	6
Note Regarding Forward-Looking	
Statements	16
How We Intend to Use the Proceeds	
from this Offering	16
Price Range of Common Stock	17
Dividend Policy	17
Capitalization	18
Dilution	19
Selected Consolidated Financial	
Data	20
Management's Discussion and Analysis	
of Financial Condition	
and Results of Operations	21
Quarterly Results of Operations	26
Business	31
Management	49
Certain Transactions	59
Principal and Selling Stockholders	61
Description of Capital Stock	64
Shares Eligible for Future Sale	67
Where You May Find Additional	0 /
Information	68
Legal Matters	69
Experts	69
Index to Consolidated Financial	09
Statements	F-1
	U-1
Underwriting	0-1

5,000,000 Shares JUNIPER NETWORKS, INC. Common Stock

[Juniper logo]

GOLDMAN, SACHS & CO.

CREDIT SUISSE FIRST BOSTON

BANCBOSTON ROBERTSON STEPHENS

DAIN RAUSCHER WESSELS A DIVISION OF DAIN RAUSCHER INCORPORATED

SG COWEN

WARBURG DILLON READ LLC

Representatives of the Underwriters

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee, the NASD filing fee and the Nasdaq National Market listing fee. None of such expenses will be borne by the selling stockholders.

SEC registration fee	\$332,600 120,140
Nasdaq National Market listing fee	,
Printing and engraving expenses	
Legal fees and expenses	
Accounting fees and expenses	
Blue sky fees and expenses	3,000
Transfer Agent and Registrar fees	
Miscellaneous fees and expenses	
Total	\$

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by current law.

Article Eighth of our Amended and Restated Certificate of Incorporation provides for the indemnification of directors and officers to the fullest extent permissible under Delaware law.

Article VI of our Bylaws provides for the indemnification of officers, directors and third parties acting on behalf of Juniper Networks if such person acted in good faith and in a manner reasonably believed to be in and not opposed to our best interest, and, with respect to any criminal action or proceeding, the indemnified party had no reason to believe his or her conduct was unlawful.

We have entered into indemnification agreements with our directors and officers, in addition to indemnification provided for in our Bylaws, and intend to enter indemnification agreements with any new directors and officers in the future. The indemnification agreements may require us, among other things, to indemnify our directors and officers against certain liabilities that may arise by reason of their status or service as directors and officers (other than liabilities arising from willful misconduct of culpable nature), to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified, and to obtain directors and officers insurance, if available on reasonable terms.

Reference is also made to Section 8 of the Underwriting Agreement contained in Exhibit 1.1 hereto, indemnifying officers and directors of Juniper Networks against certain liabilities.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

Since inception, we have issued unregistered securities to a limited number of persons as described below:

- 1. On February 6, 1996 we sold 4,050,000 shares of our common stock at an aggregate purchase price of \$8,910.00.
- 2. On April 15, 1996 we sold 225,000 shares of our common stock for an aggregate purchase price of \$2,002.50.
- 3. On June 12, 1996 we sold 450,000 shares of our common stock for an aggregate purchase price of \$20,025.00.
- 4. From inception through June 30, 1999 (the most recent practicable date), we granted stock options and restricted stock purchase rights to purchase an aggregate of 16,677,997 shares of our common stock at prices ranging from \$0.11 to \$28.00 per share to employees, consultants and directors pursuant to our 1996 Stock Plan.
- 5. From inception through June 30, 1999 (the most recent practicable date), we issued and sold an aggregate of 11,302,289 shares of our common stock to employees, consultants and directors for an aggregate consideration of \$6,492,421 pursuant to exercise of options granted under our 1996 Stock Plan.
- 6. From inception through June 30, 1999 we issued an aggregate of 111,283 shares of our common stock under our 1996 Stock Plan to consultants in consideration for past services rendered for an aggregate value of \$74,365.00.
- 7. On June 11, 1996 we sold 1,743,751 shares of Series A Preferred Stock for \$1.00 per share to the following investors for an aggregate purchase price of \$1,743,751: Kleiner Perkins Caulfield & Byers Fund VII, KPBC Information Sciences Zaibatsu Fund II, Kleiner Perkins Caulfield & Byers VII and WS Investment Company 96A.
- 8. On June 11, 1996 we sold 6,328,123 shares of common stock for \$0.44 per share to the following investors for an aggregate purchase price of \$281,249.90:
- Kleiner Perkins Caulfield & Byers Fund VII, KPCB Information Sciences Zaibatsu Fund II, Kleiner Perkins Caulfield & Byers VII and WS Investment 96A.
- 9. On August 5, 1996 and November 8, 1996 we sold 3,818,01 shares of Series B Preferred Stock for \$2.40 per share to the following private investors for an aggregate purchase price of \$9,163,240.80: Benchmark Capital Partners, L.P., Benchmark Founders' Fund, L.P., Crosspoint Venture Partners 1996, Institutional Venture Management VII, L.P., IVP Founders Fund, I, L.P., Institutional Venture Partners VI, L.P., KPCB Informational Sciences Zaibatsu Fund II, Kleiner Perkins Caulfield & Byers VII, Kriens 1996 Trust U/T/A October 29, 1996, McQuillan Consulting Self-Employed Profit Sharing Plan, NEA Presidents Fund L.P., NEA Ventures 1996, L.P., New Enterprise Associates VI, Limited Partnership, O'Brien Family Trust, U/T/A dated 7/1/92, Larry Sonsini, Stensrud Family Trust U/T/A September 16, 1993 and WS Investment Company 96B.
- 10. On December 16, 1996, in connection with an equipment lease, we issued a warrant to purchase 83,333 shares of our Series B Preferred Stock at an exercise price of \$2.40 per share to Venture Lending & Leasing, Inc.
- 11. On December 30, 1996 we issued 3,958 shares of Series B Preferred Stock at \$2.40 per share to William Gunning and Florin Oprescu as consideration for past services rendered.

- 12. On June 18, 1997, in connection with a lease agreement, we issued a warrant to a lessor of real property to purchase 10,000 shares of our Series B Preferred Stock at an exercise price of \$2.40 per share to Excite@Home.
- 13. On July 1, 1997 and September 30, 1997 we sold 5,151,178 shares of our Series C Preferred Stock at \$8.93 per share to the following private investors for an aggregate purchase price of \$46,000,020: 3Com Corporation, Anschutz Family Investment Company LLC, AT&T Venture Fund II, L.P., Crosspoint Venture Partners 1996, Ericsson Business Networks AB, Lucent Technologies Inc., Newbridge Networks Corporation, Nortel Networks Corporation and UUNet Technologies, Inc.
- 14. On September 30, 1997, in connection with an equipment lease, we issued a warrant to purchase 23,516 shares of our Series C Preferred Stock at an exercise price of \$8.93 per share to Venture Lending & Leasing, Inc.
- 15. On March 3, 1999 we issued 130,000 shares of common stock to an employee at an exercise price of \$9.90 per share pursuant to a restricted stock purchase agreement.
- 16. On March 16, 1999 we sold 500,000 shares of our Series D Preferred Stock and 2,580,000 shares of our Series D1 Preferred Stock both for \$11.03 per share to Ericsson Business Networks AB for an aggregate purchase price of \$33,972,400.

For additional information concerning these equity investment transactions, reference is made to the information contained under the caption "Certain Transactions" in the form of prospectus included herein.

Except as indicated above, none of the foregoing transactions involved any underwriters, underwriting discounts or commissions or any public offering, and we believe that each transaction was exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof, Regulation D promulgated thereunder or Rule 701 pursuant to compensatory benefit plans and contracts relating to compensation as provided under such Rule 701. The recipients in such transactions represented their intention to acquire the securities for investment only and not with a view to or for resale in connection with any distribution thereof, and appropriate legends were affixed to the share certificates and instruments issued in such transactions. All recipients had adequate access, through their relationships with us, to information about us.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) INDEX TO EXHIBITS

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
1.1	Form of Underwriting Agreement
3.1**	Amended and Restated Certificate of Incorporation of the
3.1	Registrant
3.3**	Amended and Restated Bylaws of the Registrant
4.1**	Form of Registrant's Common Stock certificate
4.6**	Third Amended and Restated Registration Rights Agreement dated March 9, 1999
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati Professional
	Corporation
10.1**	Form of Indemnification Agreement entered into by the Registrant with each of its directors, officers and certain employees
10.2**	Amended and Restated 1996 Stock Plan
10.3**	1999 Employee Stock Purchase Plan
10.4**	Sublease between Trident Microsystems, Inc. and the
	Registrant dated July 1, 1998
10.5**	Sublease between At Home Corporation and the Registrant dated June 4, 1998

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
10.6**	Severance Agreement between Scott Kriens and the Registrant dated October 1, 1996
10.7**	Change of Control Agreement between Marcel Gani and the Registrant dated February 18, 1997
10.8***	Agreement for ASIC Design and Purchase of Products between IBM Microelectronics and the Registrant dated August 26, 1997
10.8.1***	Amendment One to Agreement for ASIC Design and Purchase of Products between IBM Microelectronics and the Registrant dated January 5, 1998
10.8.2***	Amendment Two to Agreement for ASIC Design and Purchase of Products between IBM Microelectronics and the Registrant dated March 2, 1998
10.9***	Standard Manufacturing Agreement between Solectron California Corporation, Fine Pitch Technology Inc. and the Registrant dated June 10, 1998
10.10**	Lease between Mathilda Associates LLC and the Registrant dated June 18, 1999
21.1	Subsidiaries of Registrant
23.1	Consent of Ernst & Young LLP, independent auditors
23.2*	Consent of Counsel. Reference is made to Exhibit 5.1
24.1	Power of Attorney (see page II-5)

^{*} To be filed by amendment.

(b) FINANCIAL STATEMENT SCHEDULES

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

^{**} Incorporated by reference herein to the Registration Statement of Form S-1 and all amendments thereto filed with the Securities and Exchange Commission on April 21, 1999 and declared effective June 24, 1999.

^{***} Confidential treatment requested and received as to certain portions. These exhibits are incorporated by reference herein to the Registration Statement of Form S-1 and all amendments thereto filed with the Securities and Exchange Commission on April 21, 1999 and declared effective June 24, 1999.

ITEM 17. UNDERTAKINGS

Insofar as indemnification by us for liabilities arising under the Securities Act may be permitted to our directors, officers and certain employees pursuant to the provisions referenced in Item 14 of this Registration Statement or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act, and is, therefore unenforceable. In the event of a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by a director, officer or other covered employee of Juniper Networks in the successful defense of any action, suit or proceeding) is asserted by a director, officer or other covered employee in connection with the securities being registered hereunder, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

We hereby undertake that:

- (1) For purposes of determining any liability under the Securities act, the information omitted from the form of Prospectus filed as part of this Registration Statement in reliance on Rule 430A and contained in a form of Prospectus filed by us pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of Prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1993, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Mountain View, State of California, on the 30th day of August, 1999.

Juniper Networks, Inc.

 $\underline{\mathbf{B}}\mathbf{y}$

Scott Kriens President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Marcel Gani and Lisa C. Berry, and each of them acting individually, as his true and lawful attorneys-in-fact and agents, each with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES ACT OF 1933, THIS REGISTRATION STATEMENT HAS BEEN SIGNED BY THE FOLLOWING PERSONS IN THE CAPACITIES AND ON THE DATES INDICATED:

SIGNATURE	TITLE	DATE
Scott Kriens	President and Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	August 30, 1999
Pradeep Sindhu	Chief Technical Officer and Vice Chairman of the Board	August 30, 1999
Marcel Gani	Chief Financial Officer (Principal Financial and Accounting Officer)	August 30, 1999
	Director	August 30, 1999
William R. Hearst III		

SIGNATURE		TITLE	DATE	
	Director		August 30	, 1999
Vinod Khosla				
	Director		August 30	, 1999
C. Richard Kramlich	-			
	Director		August 30	, 1999
William Stensrud	-			

INDEX TO EXHIBITS

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
1.1	Form of Underwriting Agreement
3.1**	Amended and Restated Certificate of Incorporation of the Registrant
3.3**	Amended and Restated Bylaws of the Registrant
4.1**	Form of Registrant's Common Stock certificate
4.6**	Third Amended and Restated Registration Rights Agreement dated March 9, 1999
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati Professional Corporation
10.1**	Form of Indemnification Agreement entered into by the Registrant with each of its directors, officers and certain employees
10.2**	Amended and Restated 1996 Stock Plan
10.3**	1999 Employee Stock Purchase Plan
10.4**	Sublease between Trident Microsystems, Inc. and the Registrant dated July 1, 1998
10.5**	Sublease between At Home Corporation and the Registrant dated June 4, 1998
10.6**	Severance Agreement between Scott Kriens and the Registrant dated October 1, 1996
10.7**	Change of Control Agreement between Marcel Gani and the Registrant dated February 18, 1997
10.8***	Agreement for ASIC Design and Purchase of Products between IBM Microelectronics and the Registrant dated August 26, 1997
10.8.1***	Amendment One to Agreement for ASIC Design and Purchase of Products between IBM Microelectronics and the Registrant dated January 5, 1998
10.8.2***	Amendment Two to Agreement for ASIC Design and Purchase of Products between IBM Microelectronics and the Registrant dated March 2, 1998
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21.1	Subsidiaries of Registrant
23.1	Consent of Ernst & Young LLP, independent auditors
23.2*	Consent of Counsel. Reference is made to Exhibit 5.1
24.1	Power of Attorney (see page II-5)

^{*} To be filed by amendment.

Exchange Commission on April 21, 1999 and declared effective June 24, 1999.

^{**} Incorporated by reference herein to the Registration Statement of Form S-1 and all amendments thereto filed with the Securities and Exchange Commission on April 21, 1999 and declared effective June 24, 1999.

^{***} Confidential treatment requested and received as to certain portions. These exhibits are incorporated by reference herein to the Registration Statement of Form S-1 and all amendments thereto filed with the Securities and

EXHIBIT 1.1

JUNIPER NETWORKS, INC.

COMMON STOCK

UNDERWRITING AGREEMENT
, 1999

Goldman, Sachs & Co.
Credit Suisse First Boston Corporation
BancBoston Robertson Stephens Inc.
Dain Rauscher Wessels, a division of Dain Rauscher Incorporated SG Cowen Securities Corporation Warburg Dillon Read LLC
As representatives of the several Underwriters named in Schedule I hereto,
c/o Goldman, Sachs & Co.
85 Broad Street
New York, New York 10004

Ladies and Gentlemen:

1.

Juniper Networks, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to the Underwriters named in Schedule I hereto (the "Underwriters") an aggregate of 1,500,000 shares and, at the election of the Underwriters, up to 272,564 additional shares of Common Stock ("Stock") of the Company, and the stockholders of the Company named in Schedule II hereto (the "Selling Stockholders") propose, subject to the terms and conditions stated herein, to sell to the Underwriters an aggregate of 3,500,000 shares and, at the election of the Underwriters, up to 477,436 additional shares of Stock. The aggregate of 5,000,000 shares to be sold by the Company and the Selling Stockholders is herein called the "Firm Shares" and the aggregate of 750,000 additional shares to be sold by the Company and the Selling Stockholders is herein called the "Optional Shares". The Firm Shares and the Optional Shares that the Underwriters elect to purchase pursuant to Section 2 hereof are herein collectively called the "Shares".

- (a) The Company represents and warrants to, and agrees with, each of the Underwriters that:
- (i) A registration statement on Form S-1 (File No. 333-____) (the "Initial Registration Statement") in respect of the Shares has been filed with the Securities and Exchange Commission (the "Commission"); the Initial Registration Statement and any post-effective amendment thereto, each in the form heretofore delivered to you, and, excluding exhibits thereto, to you for each of the other Underwriters, have been declared effective by the Commission in such form; other than a registration statement, if any, increasing the size of the offering (a "Rule 462(b) Registration Statement"), filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Act"), which became effective upon filing, no other document with respect to the Initial Registration Statement has heretofore been filed by the Company with the Commission; and to the

Company's knowledge, no stop order suspending the effectiveness of the Initial Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued and to the Company's knowledge, no proceeding for that purpose has been initiated or threatened by the Commission (any preliminary prospectus included in the Initial Registration Statement or filed with the Commission pursuant to Rule 424(a) of the rules and regulations of the Commission under the Act is hereinafter called a "Preliminary Prospectus"; the various parts of the Initial Registration Statement and the Rule 462(b) Registration Statement, if any, including all exhibits thereto and including the information contained in the form of final prospectus filed with the Commission pursuant to Rule 424(b) under the Act in accordance with Section 5(a) hereof and deemed by virtue of Rule 430A under the Act to be part of the Initial Registration Statement at the time it was declared effective, each as amended at the time such part of the Initial Registration Statement became effective or such part of the Rule 462(b) Registration Statement, if any, became or hereafter becomes effective, are hereinafter collectively called the "Registration Statement"; and such final prospectus, in the form first filed pursuant to Rule 424(b) under the Act, is hereinafter called the "Prospectus";

- (ii) No order preventing or suspending the use of any Preliminary Prospectus has been issued by the Commission, and each Preliminary Prospectus, at the time of filing thereof, conformed in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by an Underwriter through Goldman, Sachs & Co. expressly for use therein or by a Selling Stockholder expressly for use therein;
- (iii) The Registration Statement conforms, and the Prospectus and any further amendments or supplements to the Registration Statement or the Prospectus will conform, in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder and do not and will not, as of the applicable effective date as to the Registration Statement and any amendment thereto and as of the applicable filing date as to the Prospectus and any amendment or supplement thereto, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by an Underwriter through Goldman, Sachs & Co. expressly for use therein or by a Selling Stockholder expressly for use therein;
- (iv) Neither the Company nor any of its subsidiaries has sustained since the date of the latest audited financial statements included in the Prospectus any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus; and, since the respective dates as of which information is given in the Registration Statement and the Prospectus through the date hereof, there has not been any change in the authorized capital stock, or long-term debt (except such changes in long-term debt as do not exceed \$500,000) of the Company or any of its subsidiaries, or any change in

the net current assets, stockholders' equity, net sales or net loss except if such change would not have a Material Adverse Effect (as defined below), or any development which the Company reasonably expects to cause a Material Adverse Effect (as defined below), otherwise than as set forth or contemplated in the Prospectus;

- (v) The Company and its subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title to all personal property owned by them, in each case free and clear of all liens, encumbrances and defects except such as are described in the Prospectus or such as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its subsidiaries; and any real property and buildings held under lease by the Company and its subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its subsidiaries;
- (vi) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware with power and authority (corporate and other) to own its properties and conduct its business as described in the Prospectus, and has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, or except where the failure to be so qualified would not have a material adverse effect on the business, results of operations or financial condition of the Company and subsidiaries taken as a whole (a "Material Adverse Effect"); and each subsidiary of the Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of its jurisdiction of incorporation;
- (vii) The Company has an authorized capitalization as set forth in the Prospectus, and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and conform in all material respects to the description of the Stock contained in the Prospectus; and all of the issued shares of capital stock of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and (except for directors' qualifying shares) are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims;
- (viii) The unissued Shares to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued and fully paid and non-assessable and will conform in all material respects to the description of the Stock contained in the Prospectus;
- (ix) The issue and sale of the Shares to be sold by the Company and the compliance by the Company with all of the provisions of this Agreement and the consummation of the transactions herein contemplated will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any material indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, nor will such action result in any violation of the provisions of the Certificate of Incorporation or By-laws of the Company

or, to the Company's knowledge, any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its subsidiaries or any of their properties except where such breach, or violation could not reasonably be expected to have a Material Adverse Effect; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement, except the registration under the Act of the Shares and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters:

- (x) None of the Company's subsidiaries is a "significant subsidiary" as that term is defined in Rule 1-02(w) of Regulation S-X. Neither the Company nor any of its subsidiaries is in violation of its Certificate of Incorporation or By-laws or in default in the performance or observance of any material obligation, agreement, covenant or condition contained in any material indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it or any of its properties may be bound;
- (xi) The statements set forth in the Prospectus under the caption "Description of Capital Stock" insofar as they purport to constitute a summary of the terms of the Stock and under the caption "Underwriting", insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate and complete in all material respects;
- (xii) Other than as set forth in the Prospectus, there are no legal or governmental proceedings pending to which the Company or any of its subsidiaries is a party or of which any property of the Company or any of its subsidiaries is the subject which, if determined adversely to the Company or any of its subsidiaries, would individually or in the aggregate have a Material Adverse Effect on the current or future consolidated financial position, stockholders' equity or results of operations of the Company and its subsidiaries; and, to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others;
- (xiii) The Company is not and, after giving effect to the offering and sale of the Shares, will not be an "investment company", as such term is defined in the Investment Company Act of 1940, as amended (the "Investment Company Act");
- (xiv) Neither the Company nor any of its affiliates does business with the government of Cuba or with any person or affiliate located in Cuba within the meaning of Section 517.075, Florida Statutes;
- (xv) Ernst & Young LLP, who have certified certain financial statements of the Company and its subsidiaries, are independent public accountants as required by the Act and the rules and regulations of the Commission thereunder;
- (xvi) The Company has initiated a review of its operations and those of its subsidiaries to evaluate the extent to which the business or operations of the Company or any of its subsidiaries will be affected by the Year 2000 Problem. Although we have not completed our assessment, as a result of such review conducted to date, the Company has no reason to believe, and does not believe, that the Year 2000 Problem

will have a Material Adverse Effect. The "Year 2000 Problem" as used herein means any significant risk that computer hardware or software used in the receipt, transmission, processing, manipulation, storage, retrieval, retransmission or other utilization of data or in the operation of mechanical or electrical systems of any kind will not, in the case of dates or time periods occurring after December 31, 1999, function at least as effectively as in the case of dates or time periods occurring prior to January 1, 2000;

(xvii) The Company owns, or possesses adequate rights to use, all material patents necessary for the conduct of its business: to the Company's knowledge, no valid United States patent is or would be infringed by the activities of the Company, except as would not have a material adverse effect on the business, financial condition, results of operations or prospects of the Company; there are no actions, suits or judicial proceedings pending relating to patents or proprietary information to which the Company is a party or of which any property of the Company is subject, and, to the knowledge of the Company, no actions, suits or judicial proceedings are threatened by governmental authorities or, except as set forth in the Prospectus, others, in each case except as would not result in any Material Adverse Effect, or, to the Company's knowledge, in any development which the Company reasonably expects to cause a Material Adverse Effect. The Company is not aware of any claim by others that the Company is infringing or otherwise violating the patents or other intellectual property of others and is not aware of any rights of third parties to any of the Company's patent applications, licensed patents or licenses which could affect materially the use thereof by the Company; and

- (xviii) The Company does not own any real property.
- (b) Each of the Selling Stockholders severally represents and warrants to, and agrees with, each of the Underwriters and the Company that:
- (i) All consents, approvals, authorizations and orders necessary for the execution and delivery by such Selling Stockholder of this Agreement and the Power of Attorney and the Custody Agreement hereinafter referred to, and for the sale and delivery of the Shares to be sold by such Selling Stockholder hereunder, have been obtained; and such Selling Stockholder has full right, power and authority to enter into this Agreement, the Power-of-Attorney and the Custody Agreement and to sell, assign, transfer and deliver the Shares to be sold by such Selling Stockholder hereunder;
- (ii) The sale of the Shares to be sold by such Selling Stockholder hereunder and the compliance by such Selling Stockholder with all of the provisions of this Agreement, the Power of Attorney and the Custody Agreement and the consummation of the transactions herein and therein contemplated will not, to the knowledge of such Selling Stockholder, conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any statute, or any material indenture, mortgage, deed of trust, loan agreement or other material agreement or instrument to which such Selling Stockholder is a party or by which such Selling Stockholder is bound or to which any of the property or assets of such Selling Stockholder is subject, nor will such action result in any violation of the provisions of the Certificate of Incorporation or By-laws of such Selling Stockholder if such Selling Stockholder is a corporation, the Partnership Agreement of such Selling Stockholder if such Selling Stockholder, any order, rule or regulation of any court or governmental agency or body having jurisdiction over such Selling Stockholder or the property of such Selling Stockholder, except in each case as

would not adversely affect the ability of the Selling Stockholder to consummate the transactions contemplated by this Agreement;

- (iii) Such Selling Stockholder has, and immediately prior to each Time of Delivery (as defined in Section 4 hereof) such Selling Stockholder will have, good and valid title to the Shares to be sold by such Selling Stockholder hereunder, free and clear of all liens, encumbrances, equities or claims for which such Selling Stockholder has received notice; and, assuming the Underwriters purchased the Shares to be sold by such Selling Stockholder for value, in good faith and without notice of any adverse claims within the meaning of the Uniform Commercial Code, good and valid title to such Shares, free and clear of all liens, encumbrances, equities or claims, will pass to the several Underwriters;
- (iv) During the period beginning from the date hereof and continuing to and including the date 90 days after the date of the Prospectus, not to offer, sell, contract to sell or otherwise dispose of, except as provided hereunder, any securities of the Company that are substantially similar to the Shares, including but not limited to any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities (other than pursuant to employee stock option plans existing on, or upon the conversion or exchange of convertible or exchangeable securities outstanding as of, the date of this Agreement), without your prior written consent;
- (v) Such Selling Stockholder has not taken and will not take, directly or indirectly, any action which is designed to or which has constituted or which might reasonably be expected to cause or result in stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares:
- (vi) To the extent that any statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement thereto are made in reliance upon and in conformity with written information furnished to the Company by such Selling Stockholder expressly for use therein, such Preliminary Prospectus and the Registration Statement did, and the Prospectus and any further amendments or supplements to the Registration Statement and the Prospectus, when they become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading;
- (vii) In order to document the Underwriters' compliance with the reporting and withholding provisions of the Tax Equity and Fiscal Responsibility Act of 1982 with respect to the transactions herein contemplated, such Selling Stockholder will deliver to you prior to or at the First Time of Delivery (as hereinafter defined) a properly completed and executed United States Treasury Department Form W-9 (or other applicable form or statement specified by Treasury Department regulations in lieu thereof);
- (viii) Certificates in negotiable form representing the Shares to be sold by such Selling Stockholder hereunder have been placed in custody under a Custody Agreement, in the form heretofore furnished to you (the "Custody Agreement"), duly executed and delivered by such Selling Stockholder to Norwest Bank Minnesota, N.A., as custodian (the "Custodian"), and such Selling Stockholder has duly executed and

delivered a Power of Attorney, in the form heretofore furnished to you (the "Power of Attorney"), appointing the persons indicated in Schedule II hereto, and each of them, as such Selling Stockholder's attorneys-in-fact (the "Attorneys-in-Fact") with authority to execute and deliver this Agreement on behalf of such Selling Stockholder, to determine the purchase price to be paid by the Underwriters to the Selling Stockholders as provided in Section 2 hereof, to authorize the delivery of the Shares to be sold by such Selling Stockholder hereunder and otherwise to act on behalf of such Selling Stockholder in connection with the transactions contemplated by this Agreement and the Custody Agreement; and

- (ix) The Shares represented by the certificates held in custody for such Selling Stockholder under the Custody Agreement and representing all of the Shares to be sold by such Selling Stockholder hereunder are subject to the interests of the Underwriters hereunder; the arrangements made by such Selling Stockholder for such custody, and the appointment by such Selling Stockholder of the Attorneys-in-Fact by the Power of Attorney, are to that extent irrevocable; the obligations of the Selling Stockholders hereunder shall not be terminated by operation of law, whether by the death or incapacity of any individual Selling Stockholder or, in the case of an estate or trust, by the death or incapacity of any executor or trustee or the termination of such estate or trust, or in the case of a partnership or corporation, by the dissolution of such partnership or corporation, or by the occurrence of any other event; if any individual Selling Stockholder or any such executor or trustee should die or become incapacitated, or if any such estate or trust should be terminated, or if any such partnership or corporation should be dissolved, or if any other such event should occur, before the delivery of the Shares hereunder, certificates representing the Shares shall be delivered by or on behalf of the Selling Stockholders in accordance with the terms and conditions of this Agreement and of the Custody Agreements; and actions taken by the Attorneys-in-Fact pursuant to the Powers of Attorney shall be as valid as if such death, incapacity, termination, dissolution or other event had not occurred, regardless of whether or not the Custodian, the Attorneys-in-Fact, or any of them, shall have received notice of such death, incapacity, termination, dissolution or other event.
- 2. Subject to the terms and conditions herein set forth, (a) the Company and each of the Selling Stockholders agree, severally and not jointly, to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company and each of the Selling Stockholders, at a purchase price per share of \$_______, the number of Firm Shares (to be adjusted by you so as to eliminate fractional shares) determined by multiplying the aggregate number of Firm Shares to be sold by the Company and each of the Selling Stockholders as set forth opposite their respective names in Schedule II hereto by a fraction, the numerator of which is the aggregate number of Firm Shares to be purchased by such Underwriter as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of which is the aggregate number of Firm Shares to be purchased by all of the Underwriters from the Company and all of the Selling Stockholders hereunder and (b) in the event and to the extent that the Underwriters shall exercise the election to purchase Optional Shares as provided below, each of the Selling Stockholders agrees, severally and not jointly, to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from each of the Selling Stockholders, at the purchase price per share set forth in clause (a) of this Section 2, that portion of the number of Optional Shares as to which such election shall have been exercised (to be adjusted by you so as to eliminate fractional shares) determined by multiplying such number of Optional Shares by a fraction the numerator of which is the maximum number of Optional Shares which such Underwriter is entitled to purchase as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of

which is the maximum number of Optional Shares that all of the Underwriters are entitled to purchase hereunder.

The Company and the Selling Stockholders, as and to the extent indicated in Schedule II hereto, hereby grant, severally and not jointly, to the Underwriters the right to purchase at their election up to 750,000 Optional Shares, at the purchase price per share set forth in the paragraph above, for the sole purpose of covering overallotments in the sale of the Firm Shares. Any such election to purchase Optional Shares shall be made in proportion to the maximum number of Optional Shares to be sold by the Company and each Selling Stockholder as set forth in Schedule II hereto. Any such election to purchase Optional Shares may be exercised only by written notice from you to the Company and the Attorneys-in-Fact, given within a period of 30 calendar days after the date of this Agreement and setting forth the aggregate number of Optional Shares to be purchased and the date on which such Optional Shares are to be delivered, as determined by you but in no event earlier than the First Time of Delivery (as defined in Section 4 hereof) or, unless you and the Attorneys-in-Fact otherwise agree in writing, earlier than two or later than ten business days after the date of such notice.

- 3. Upon the authorization by you of the release of the Firm Shares, the several Underwriters propose to offer the Firm Shares for sale upon the terms and conditions set forth in the Prospectus.
- 4. (a) The Shares to be purchased by each Underwriter hereunder, in definitive form, and in such authorized denominations and registered in such names as Goldman, Sachs & Co. may request upon at least forty-eight hours' prior notice to the Company and the Selling Stockholders shall be delivered by or on behalf of the Company and the Selling Stockholders to Goldman, Sachs & Co., through the facilities of the Depository Trust Company ("DTC"), for the account of such Underwriter, against payment by or on behalf of such Underwriter of the purchase price therefor by wire transfer payable in the case of the Shares to be purchased from the Company to the order of the Company and in the case of the Shares to be purchased from the Selling Stockholders, to the order of the Custodian in Federal (same-day) funds to the account specified by the Company and the Custodian, to Goldman, Sachs & Co. at least forty-eight hours in advance. The Company will cause the certificates representing the Shares to be made available for checking and packaging at least twenty-four hours prior to the Time of Delivery (as defined below) with respect thereto at the office of DTC or its designated custodian (the "Designated Office"). The time and date of such delivery and payment shall be, with respect to the Firm Shares, 10:00 a.m., New York time, on ______, 1999 or such other time and date as Goldman, Sachs & Co., the Company and the Selling Stockholders may agree upon in writing, and, with respect to the Optional Shares, 10:00 a.m., New York time, on the date specified by Goldman, Sachs & Co. in the written notice given by Goldman, Sachs & Co. of the Underwriters' election to purchase such Optional Shares, or such other time and date as Goldman, Sachs & Co. and, the Company and the Selling Stockholders may agree upon in writing. Such time and date for delivery of the Firm Shares is herein called the "First Time of Delivery", such time and date for delivery of the Optional Shares, if not the First Time of Delivery, is herein called the "Second Time of Delivery", and each such time and date for delivery is herein called a "Time of Delivery".
- (b) The documents to be delivered at each Time of Delivery by or on behalf of the parties hereto pursuant to Section 7 hereof, including the cross receipt for the Shares and any additional documents requested by the Underwriters pursuant to Section 7(k) hereof, will be delivered at the offices of Wilson Sonsini Goodrich & Rosati, Professional Corporation, 650 Page Mill Road, Palo Alto, CA 94303 (the "Closing Location"), and the Shares will be delivered at the Designated Office, all at such Time of Delivery. A meeting will be held at the Closing

Location at ______p.m., New York City time, on the New York Business Day next preceding such Time of Delivery, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 4, "New York Business Day" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York are generally authorized or obligated by law or executive order to close.

- 5. The Company agrees with each of the Underwriters:
- (a) To prepare the Prospectus in a form approved by you and to file such Prospectus pursuant to Rule 424(b) under the Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by Rule 430A(a)(3) under the Act; to make no further amendment or any supplement to the Registration Statement or Prospectus which shall be disapproved by you promptly after reasonable notice thereof; to advise you, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the Prospectus or any amended Prospectus has been filed and to furnish you with copies thereof; to advise you, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or prospectus, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or prospectus or suspending any such qualification, promptly to use its best efforts to obtain the withdrawal of such order:
- (b) Promptly from time to time to take such action as you may reasonably request to qualify the Shares for offering and sale under the securities laws of such jurisdictions as you may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction;
- (c) Prior to 10:00 A.M., New York City time, on the New York Business Day next succeeding the date of this Agreement and from time to time, to furnish the Underwriters with copies of the Prospectus in New York City in such quantities as you may reasonably request, and, if the delivery of a prospectus is required at any time prior to the expiration of the earlier of nine months after the time of issue of the Prospectus in connection with the offering or sale of the Shares or the date the distribution of the Shares is completed, and if at such time any events shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it shall be necessary during such period to amend or supplement the Prospectus in order to comply with the Act; to notify you and upon your request; to prepare and furnish without charge to each Underwriter and to any dealer in securities as many copies as you may from time to time reasonably request of an amended Prospectus or a supplement to the Prospectus which will correct such statement or omission or effect such compliance, and in case any Underwriter is required to deliver a prospectus in connection with sales of any of the Shares through the earlier of nine months or the date the distribution of the Shares is completed, upon

your request but at the expense of such Underwriter, to prepare and deliver to such Underwriter as many copies as you may request of an amended or supplemented Prospectus complying with Section 10(a)(3) of the Act;

- (d) To make generally available to its securityholders as soon as practicable, but in any event not later than eighteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act), an earnings statement of the Company and its subsidiaries (which need not be audited) complying with Section 11(a) of the Act and the rules and regulations of the Commission thereunder (including, at the option of the Company, Rule 158);
- (e) During the period beginning from the date hereof and continuing to and including the date 90 days after the date of the Prospectus, not to offer, sell, contract to sell or otherwise dispose of, except as provided hereunder, any securities of the Company that are substantially similar to the Shares, including but not limited to any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities (other than pursuant to employee stock option plans and employee stock purchase plans existing on, or upon the conversion or exchange of convertible or exchangeable securities or the exercise of warrants outstanding as of, the date of this Agreement), without your prior written consent or pursuant to an acquisition transaction, provided, however, that any recipient of securities of the Company pursuant to such an acquisition transaction agrees to receive and hold such securities subject to the provisions of Subsection 1(b) (iv) hereof;
- (f) To furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders' equity and cash flows of the Company and its consolidated subsidiaries certified by independent public accountants) and, as soon as practicable after the end of each of the first three quarters of each fiscal year (beginning with the fiscal quarter ending after the effective date of the Registration Statement), to make available to its stockholders consolidated summary financial information of the Company and its subsidiaries for such quarter in reasonable detail;
- (g) During a period of five years from the effective date of the Registration Statement, to furnish to you copies of all reports or other communications (financial or other) furnished to stockholders, and to deliver to you as soon as they are available, copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed;
- (h) To use the net proceeds received by it from the sale of the Shares pursuant to this Agreement in the manner specified in the Prospectus under the caption "Use of Proceeds";
- (i) To use its best efforts to list for quotation the Shares on the Nasdaq National Market ("Nasdaq"); and
- (j) If the Company elects to rely upon Rule 462(b), the Company shall file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) by 10:00 P.M., Washington, D.C. time, on the date of this Agreement, and the Company shall at the time of filing either pay to the Commission the filing fee for the Rule 462(b) Registration Statement or give irrevocable instructions for the payment of such fee pursuant to Rule 111(b) under the Act.
- 6. The Company and each of the Selling Stockholders covenant and agree with one another and with the several Underwriters that (a) the Company will pay, and such Selling Stockholder will cause to be paid by the Company, the following: (i) the fees, disbursements and

expenses of the Company's counsel and accountants in connection with the registration of the Shares under the Act and all other expenses in connection with the preparation, printing and filing of the Registration Statement, any Preliminary Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers; (ii) the cost of printing or producing any Agreement among Underwriters, this Agreement, the Blue Sky Memorandum, closing documents and any other documents in connection with the offering, purchase, sale and delivery of the Shares; (iii) all expenses in connection with the qualification of the Shares for offering and sale under state securities laws as provided in Section 5(b) hereof, including the fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky survey (iv) all fees and expenses in connection with listing the Shares on Nasdaq and (v) the filing fees incident to securing any required review by the National Association of Securities Dealers, Inc. of the terms of the sale of the Shares; (vi) the cost of preparing stock certificates; (vii) the cost and charges of any transfer agent or registrar and (viii) all other costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section; and (b) such Selling Stockholder will pay or cause to be paid all costs and expenses incident to the performance of such Selling Stockholder's obligations hereunder which are not otherwise specifically provided for in this Section, including (i) any fees and expenses of counsel for such Selling Stockholder, and (ii) all expenses and taxes incident to the sale and delivery of the Shares to be sold by such Selling Stockholder to the Underwriters hereunder. It is understood, however, that the Company shall bear, and the Selling Stockholders shall not be required to pay or to reimburse the Company for the cost of any other matters not directly related to the sale and purchase of the Shares pursuant to this Agreement, and that except as provided in this Section, and Sections 8 and 11 hereof, the Underwriters will pay all of their own costs and expenses, including the fees of their counsel, stock transfer taxes on resale of any of the Shares by them, and any advertising expenses connected with any offers they may make.

- 7. The obligations of the Underwriters hereunder, as to the Shares to be delivered at each Time of Delivery, shall be subject, in their discretion, to the condition that all representations and warranties and other statements of the Company and of the Selling Stockholders herein are, at and as of such Time of Delivery, true and correct, the condition that the Company and the Selling Stockholders shall have performed all of its and their obligations hereunder theretofore to be performed, and the following additional conditions:
- (a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) within the applicable time period prescribed for such filing by the rules and regulations under the Act and in accordance with Section 5(a) hereof; if the Company has elected to rely upon Rule 462 (b), the Rule 462(b) Registration Statement shall have become effective by 10:00 P.M., Washington, D.C. time, on the date of this Agreement; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been instued and no proceeding for that purpose shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction;
- (b) Brobeck, Phleger & Harrison, LLP, counsel for the Underwriters, shall have furnished to you such written opinion or opinions (a draft of each such opinion is attached as Annex II(a) hereto), dated such Time of Delivery, with respect to the matters covered in paragraphs (i), (ii), (vii), (xi) and
- (xiii) of subsection (c) below as well as such other related matters as you may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters;

- (c) Wilson Sonsini Goodrich & Rosati, counsel for the Company, shall have furnished to you their written opinion (a draft of such opinion is attached as Annex II(b) hereto), dated such Time of Delivery, in form and substance satisfactory to you, to the effect that:
- (i) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware with power and authority (corporate and other) to own its properties and conduct its business as described in the Prospectus;
- (ii) The Company has an authorized capitalization as set forth in the Prospectus, and all of the issued shares of capital stock of the Company (including the Shares being delivered at such Time of Delivery) have been duly and validly authorized and issued and are fully paid and non-assessable; and the Shares conform to the description of the Stock contained in the Prospectus;
- (iii) The Company has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except where the failure to be so qualified would not have a Material Adverse Effect (such counsel being entitled to rely in respect of the opinion in this clause upon opinions of local counsel and in respect of matters of fact upon certificates of officers of the Company, provided that such counsel shall state that they believe that both you and they are justified in relying upon such opinions and certificates);
- (iv) Each subsidiary of the Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of its jurisdiction of incorporation; and all of the issued shares of capital stock of each such subsidiary have been duly and validly authorized and issued, are fully paid and non-assessable, and (except for directors' qualifying shares) are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims (such counsel being entitled to rely in respect of the opinion in this clause upon opinions of local counsel and in respect of matters of fact upon certificates of officers of the Company or its subsidiaries, provided that such counsel shall state that they believe that both you and they are justified in relying upon such opinions and certificates);
- (v) Any real property and buildings held under lease by the Company and its subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its subsidiaries (in giving the opinion in this clause, such counsel may state that upon opinions of local counsel and abstracts, reports and policies of title companies rendered or issued at or subsequent to the time of acquisition of such property by the Company or its subsidiaries, upon opinions of counsel to the lessors of such property and, in respect of matters of fact, upon certificates of officers of the Company or its subsidiaries, provided that such counsel shall state that they believe that both you and they are justified in relying upon such opinions, abstracts, reports, policies and certificates);
- (vi) To such counsel's knowledge, there are no legal or governmental proceedings pending or threatened against the Company of a character required to be disclosed in the Registration Statement or Prospectus by the Act or the rules and regulations of the Commission thereunder, other than those described therein;

- (vii) This Agreement has been duly authorized, executed and delivered by the Company;
- (viii) The issue and sale of the Shares being delivered at such Time of Delivery to be sold by the Company and the compliance by the Company with all of the provisions of this Agreement and the consummation of the transactions herein contemplated will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any material agreement of the Company filed as an exhibit to the Registration Statement pursuant to Item 601 of Regulation S-K, nor will such action result in any violation of the provisions of the Certificate of Incorporation or By-laws of the Company or any statute or any order, rule or regulation known to such counsel of any court or governmental agency or body having jurisdiction over the Company or any of its subsidiaries or any of their properties which would have a Material Adverse Effect;
- (ix) No consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement, except the registration under the Act of the Shares, and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters;
- (x) To such counsel's knowledge, neither the Company nor any of its subsidiaries is in violation of its Certificate of Incorporation or By-laws;
- (xi) The statements set forth in the Prospectus under the caption "Description of Capital Stock", insofar as they purport to constitute a summary of the terms of the Stock, are accurate, complete and fair in all material respects;
- (xii) The Company is not an "investment company", as such term is defined in the Investment Company Act; and
- (xiii) The Registration Statement and the Prospectus and any further amendments and supplements thereto made by the Company prior to such Time of Delivery (other than the financial statements and related schedules and financial data therein, as to which such counsel need express no opinion) comply as to form in all material respects with the requirements of the Act and the rules and regulations thereunder; although they do not assume any responsibility for the accuracy, completeness or fairness of the statements contained in the Registration Statement or the Prospectus, except for those referred to in the opinion in subsection (xi) of this Section 7(c), they have no reason to believe that, as of its effective date, the Registration Statement or any further amendment thereto made by the Company prior to such Time of Delivery (other than the financial statements and related schedules and financial data therein, as to which such counsel need express no opinion) contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading or that, as of its date, the Prospectus or any further amendment or supplement thereto made by the Company prior to such Time of Delivery (other than the financial statements and related schedules therein, as to which such counsel need express no opinion) contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made,

not misleading or that, as of such Time of Delivery, either the Registration Statement or the Prospectus or any further amendment or supplement thereto made by the Company prior to such Time of Delivery (other than the financial statements and related schedules and financial data therein, as to which such counsel need express no opinion) contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and they do not know of any amendment to the Registration Statement required to be filed or of any contracts or other documents of a character required to be filed as an exhibit to the Registration Statement or required to be described in the Registration Statement or the Prospectus which are not filed or described as required;

- (d) Fish & Richardson P.C., patent counsel for the Company, shall have furnished to you their written opinion (a draft of such opinion is attached as Annex II(c) hereto), dated such Time of Delivery, in form and substance satisfactory to you, to the effect that:
- (i) The Company is listed in the records of the United States Patent and Trademark Office as the holder of record of the patents listed on a schedule to such opinion (the "Patents") and each of the applications listed on a schedule to such opinion (the "Applications"). To the knowledge of such counsel, there are no claims of third parties to any ownership interest or lien with respect to any of the Patents or Applications. Such counsel is not aware of any material defect in form in the preparation or filing of the Applications on behalf of the Company. To the knowledge of such counsel, the Applications are being pursued by the Company. To the knowledge of such counsel, the Company owns as its sole property the Patents and pending Applications;
- (ii) The Company is listed in the records of the appropriate foreign offices as the sole holder of record of the foreign patents listed on a schedule to such opinion (the "Foreign Patents") and each of the applications listed on a schedule to such opinion (the "Foreign Applications"). Such counsel knows of no claims of third parties to any ownership interest or lien with respect to the Foreign Patents or Foreign Applications. Such counsel is not aware of any material defect of form in the preparation or filing of the Foreign Applications on behalf of the Company. To the knowledge of such counsel, the Foreign Applications are being pursued by the Company. To the knowledge of such counsel, the Company owns as its sole property the Foreign Patents and pending Foreign Applications;
- (iii) Such counsel knows of no reason why the Patents or Foreign Patents are not valid as issued. Such counsel has no knowledge of any reason why any patent to be issued as a result of any Application or Foreign Application would not be valid or would not afford the Company useful patent protection with respect thereto;
- (iv) As to the statements under the captions "Risk Factors -- We rely on our intellectual property rights and may be unable to protect those rights" and "Business -- Intellectual Property," nothing has come to the attention of such counsel which caused them to believe that the above-mentioned sections of the Registration Statement, at the time the Registration Statement became effective and at all times subsequent thereto up to and on the Closing Date and on any later date on which the Optional Shares are to be, as the case may be, the above-mentioned sections of the Registration Statement, Prospectus and any amendment or supplement thereto made available and reviewed by such counsel contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; and

- (v) Such counsel knows of no material action, suit, claim or proceeding relating to patents, patent rights or licenses, trademarks or trademark rights, copyrights, collaborative research, licenses or royalty arrangements or agreements or trade secrets, know-how or proprietary techniques, including processes and substances, owned by or affecting the business or operations of the Company which are pending or threatened against the Company or any of its officers or directors.
- (e) The respective counsel for each of the Selling Stockholders, as indicated in Schedule II hereto, each shall have furnished to you their written opinion with respect to each of the Selling Stockholders for whom they are acting as counsel (a draft of each such opinion is attached as Annex II(d) hereto), dated such Time of Delivery, in form and substance satisfactory to you, to the effect that:
- (i) A Power-of-Attorney and a Custody Agreement have been duly executed and delivered by such Selling Stockholder and constitute valid and binding agreements of such Selling Stockholder in accordance with their terms;
- (ii) This Agreement has been duly executed and delivered by or on behalf of such Selling Stockholder; and the sale of the Shares to be sold by such Selling Stockholder hereunder and the compliance by such Selling Stockholder with all of the provisions of this Agreement, the Power-of-Attorney and the Custody Agreement and the consummation of the transactions herein and therein contemplated will not conflict with or result in any violation of the provisions of the Certificate of Incorporation or By-laws of such Selling Stockholder if such Selling Stockholder is a corporation, the Partnership Agreement of such Selling Stockholder if such Selling Stockholder is a partnership or, to such counsel's knowledge, any material statute, order, rule or regulation known to such counsel of any court or governmental agency or body having jurisdiction over such Selling Stockholder or the property of such Selling Stockholder, except in each case as would not adversely affect the ability of such Selling Stockholder to consummate the transactions contemplated by this Agreement;
- (iii) To such counsel's knowledge, no consent, approval, authorization or order of any court or governmental agency or body is required for the consummation of the transactions contemplated by this Agreement in connection with the Shares to be sold by such Selling Stockholder hereunder, except registration under the Act of the Shares and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of such Shares by the Underwriters;
- (iv) To such counsel's knowledge, immediately prior to such Time of Delivery, such Selling Stockholder had good and valid title to the Shares to be sold at such Time of Delivery by such Selling Stockholder under this Agreement, free and clear of all liens, encumbrances, equities or claims, and full corporate right, power and authority to sell, assign, transfer and deliver the Shares to be sold by such Selling Stockholder hereunder; and
- (v) Good and valid title to such Shares, free and clear of all liens, encumbrances, equities or claims, will be transferred to each of the several Underwriters assuming that each such Underwriter purchases such Shares for value, in good faith and without notice of any such lien, encumbrance, equity or claim or any other adverse claim within the meaning of the Uniform Commercial Code.

In rendering the opinion in paragraph (iv), such counsel may rely upon a certificate of such Selling Stockholder in respect of matters of fact such ownership of, and liens, encumbrances, equities or claims on, the Shares sold by such Selling Stockholder, provided that such counsel shall state that they believe that both you and they are justified in relying upon such certificate;

- (f) On the date of the Prospectus at a time prior to the execution of this Agreement, at 9:30 a.m., New York City time, on the effective date of any post-effective amendment to the Registration Statement filed subsequent to the date of this Agreement and also at each Time of Delivery, Ernst & Young LLP shall have furnished to you a letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to you, to the effect set forth in Annex I hereto (the executed copy of the letter delivered prior to the execution of this Agreement is attached as Annex I(a) hereto and a draft of the form of letter to be delivered on the effective date of any post-effective amendment to the Registration Statement and as of each Time of Delivery is attached as Annex I(b) hereto).
- (g) (i) Neither the Company nor any of its subsidiaries shall have sustained since the date of the latest audited financial statements included in the Prospectus any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus, and (ii) since the respective dates as of which information is given in the Prospectus there shall not have been any change in the capital stock, net current assets, stockholders' equity, net sales, net loss or long-term debt of the Company or any of its subsidiaries or any change, or any development involving a prospective change, in or affecting the general affairs, management, financial position, stockholders' equity or results of operations of the Company and its subsidiaries, otherwise than as set forth or contemplated in the Prospectus, the effect of which, in any such case described in clause (i) or (ii), is in the reasonable judgment of the Representatives so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Time of Delivery on the terms and in the manner contemplated in the Prospectus;
- (h) On or after the date hereof there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the New York Stock Exchange or on Nasdaq; (ii) a suspension or material limitation in trading in the Company's securities on Nasdaq; (iii) a general moratorium on commercial banking activities declared by either Federal or New York or California State authorities; or (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war, if the effect of any such event specified in this clause (iv) in the judgment of the Representatives makes it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Time of Delivery on the terms and in the manner contemplated in the Prospectus;
- (i) The Shares at such Time of Delivery shall have been duly listed for quotation on Nasdaq;
- (j) The Company has obtained and delivered to the Underwriters executed copies of an agreement from each stockholder listed on Schedule III hereto substantially to the effect set forth in Subsection 1(b)(iv) hereof in form and substance satisfactory to you;

- (k) The Company shall have complied with the provisions of Section 5(c) hereof with respect to the furnishing of prospectuses on the New York Business Day next succeeding the date of this Agreement; and
- (l) The Company and the Selling Stockholders shall have furnished or caused to be furnished to you at such Time of Delivery certificates of officers of the Company and of the Selling Stockholders, respectively, satisfactory to you as to the accuracy of the representations and warranties of the Company and the Selling Stockholders, respectively, herein at and as of such Time of Delivery, as to the performance by the Company and the Selling Stockholders of all of their respective obligations hereunder to be performed at or prior to such Time of Delivery, and as to such other matters as you may reasonably request, and the Company shall have furnished or caused to be furnished certificates as to the matters set forth in subsections (a) and (f) of this Section.
- 8. (a) The Company will indemnify and hold harmless each Underwriter against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by any Underwriter expressly for use therein.
- (b) Each of the Selling Stockholders, severally and not jointly, will indemnify and hold harmless each Underwriter against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information relating to such Selling Stockholder furnished to the Company by such Selling Stockholder expressly for use therein;

and each such Selling Stockholder will reimburse each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; provided, however, that such Selling Stockholder shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by any Underwriter expressly for use therein; and further provided however, that the liability of a Selling Stockholder pursuant to this subsection

- (b) shall not exceed the product of the number of Shares sold by such Selling Stockholder and the initial public offering price less the underwriting discount of the Shares, as set forth in the Prospectus.
- (c) Each Underwriter will indemnify and hold harmless the Company and each Selling Stockholder against any losses, claims, damages or liabilities to which the Company or such Selling Stockholder may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by such Underwriter expressly for use therein; and will reimburse the Company and each Selling Stockholder for any legal or other expenses reasonably incurred by the Company or such Selling Stockholder in connection with investigating or defending any such action or claim as such expenses are incurred.
- (d) Promptly after receipt by an indemnified party under subsection (a),
- (b) or (c) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party otherwise than under such subsection. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of an
- (e) If the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a),
- (b) or (c) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company and

the Selling Stockholders on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law or if the indemnified party failed to give the notice required under (d) above, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the indemnifying party on the one hand and the indemnified on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company and the Selling Stockholders on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company and the Selling Stockholders bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Selling Stockholders on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company, each of the Selling Stockholders and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (e) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (e). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (e) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (e), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission, and no Selling Stockholder shall be required to contribute any amount in excess of the product of the number Shares sold by such Selling Stockholder and the initial public offering price less the underwriting discount of the Shares, as set forth in the Prospectus. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (e) to contribute are several in proportion to their respective underwriting obligations and not joint.

(f) The obligations of the Company and the Selling Stockholders under this Section 8 shall be in addition to any liability which the Company and the respective Selling Stockholders may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of the Act; and the obligations of the Underwriters under this Section 8 shall be in addition to any liability which the respective Underwriters may otherwise have and shall extend, upon the same terms and conditions, to each officer and director of the Company (including any person who, with his or her consent, is named in the Registration Statement as about to become a director of the Company) and to each person, if any, who controls the Company or any Selling Stockholder within the meaning of the Act.

9. (a) If any Underwriter shall default in its obligation to purchase the Shares which it has agreed to purchase hereunder at a Time of Delivery, you may in your discretion arrange

for you or another party or other parties to purchase such Shares on the terms contained herein. If within thirty-six hours after such default by any Underwriter you do not arrange for the purchase of such Shares, then the Company and the Selling Stockholders shall be entitled to a further period of thirty-six hours within which to procure another party or other parties reasonably satisfactory to you to purchase such Shares on such terms. In the event that, within the respective prescribed periods, you notify the Company and the Selling Stockholders that you have so arranged for the purchase of such Shares, or the Company and the Selling Stockholders notify you that they have so arranged for the purchase of such Shares, you or the Company and the Selling Stockholders shall have the right to postpone a Time of Delivery for a period of not more than seven days, in order to effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees to file promptly any amendments to the Registration Statement or the Prospectus which in your opinion may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section with like effect as if such person had originally been a party to this Agreement with respect to such Shares.

- (b) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company and the Selling Stockholders as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased does not exceed one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, then the Company and the Selling Stockholders shall have the right to require each non-defaulting Underwriter to purchase the number of Shares which such Underwriter agreed to purchase hereunder at such Time of Delivery and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Shares which such Underwriter agreed to purchase hereunder) of the Shares of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default.
- (c) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company and the Selling Stockholders as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased exceeds one-eleventh of the aggregate number of all of the Shares to be purchased at such Time of Delivery, or if the Company and the Selling Stockholders shall not exercise the right described in subsection (b) above to require non-defaulting Underwriters to purchase Shares of a defaulting Underwriter or Underwriters, then this Agreement (or, with respect to the Second Time of Delivery, the obligations of the Underwriters to purchase and of the Selling Stockholders to sell the Optional Shares) shall thereupon terminate, without liability on the part of any non-defaulting Underwriter or the Company or the Selling Stockholders, except for the expenses to be borne by the Company and the Selling Stockholders and the Underwriters as provided in Section 6 hereof and the indemnity and contribution agreements in Section 8 hereof; but nothing herein shall relieve a defaulting Underwriter from liability for its default.
- 10. The respective indemnities, agreements, representations, warranties and other statements of the Company, the Selling Stockholders and the several Underwriters, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or any controlling person of any Underwriter, or the Company, or any of the Selling Stockholders, or any officer or director or controlling person of the Company, or any controlling person of any Selling Stockholder, and shall survive delivery of and payment for the Shares.

- 11. If this Agreement shall be terminated pursuant to Section 9 hereof, neither the Company nor the Selling Stockholders shall then be under any liability to any Underwriter except as provided in Sections 6 and 8 hereof; but, if for any other reason any Shares are not delivered by or on behalf of the Company and the Selling Stockholders as provided herein, the Company and each of the Selling Stockholders pro rata (based on the number of Shares to be sold by the Company and such Selling Stockholder hereunder) will reimburse the Underwriters through you for all out-of-pocket expenses approved in writing by you, including fees and disbursements of counsel, reasonably incurred by the Underwriters in making preparations for the purchase, sale and delivery of the Shares not so delivered, but the Company and the Selling Stockholders shall then be under no further liability to any Underwriter in respect of the Shares not so delivered except as provided in Sections 6 and 8 hereof.
- 12. In all dealings hereunder, you shall act on behalf of each of the Underwriters, and the parties hereto shall be entitled to act and rely upon any statement, request, notice or agreement on behalf of any Underwriter made or given by you jointly or by Goldman, Sachs & Co. on behalf of you as the representatives; and in all dealings with any Selling Stockholder hereunder, you and the Company shall be entitled to act and rely upon any statement, request, notice or agreement on behalf of such Selling Stockholder made or given by any or all of the Attorneys-in-Fact for such Selling Stockholder.

All statements, requests, notices and agreements hereunder shall be in writing, and if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to you as the REPRESENTATIVES in care of Goldman, Sachs & Co., 32 Old Slip, 9th Floor, New York, New York 10005, Attention: Registration Department; if to any Selling Stockholder shall be delivered or sent by mail, telex or facsimile transmission to counsel for such Selling Stockholder at its address set forth in Schedule II hereto; and if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Secretary; provided, however, that any notice to an Underwriter pursuant to Section 8(d) hereof shall be delivered or sent by mail, telex or facsimile transmission to such Underwriter at its address set forth in its Underwriters' Questionnaire or telex constituting such Questionnaire, which address will be supplied to the Company or the Selling Stockholders by you on request. Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

- 13. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriters, the Company and the Selling Stockholders and, to the extent provided in Sections 8 and 10 hereof, the officers and directors of the Company and each person who controls the Company, any Selling Stockholder or any Underwriter, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Shares from any Underwriter shall be deemed a successor or assign by reason merely of such purchase.
- 14. Time shall be of the essence of this Agreement. As used herein, the term "business day" shall mean any day when the Commission's office in Washington, D.C. is open for business.
- 15. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.
- 16. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument.

If the foregoing is in accordance with your understanding, please sign and return to us seven (7) counterparts hereof, and upon the acceptance hereof by you, on behalf of each of the Underwriters, this letter and such acceptance hereof shall constitute a binding agreement among each of the Underwriters, the Company and each of the Selling Stockholders. It is understood that your acceptance of this letter on behalf of each of the Underwriters is pursuant to the authority set forth in a form of Agreement among Underwriters, the form of which shall be submitted to the Company and the Selling Stockholders for examination, upon request, but without warranty on your part as to the authority of the signers thereof

Any person executing and delivering this Agreement as Attorney-in-Fact for a Selling Stockholder represents by so doing that he has been duly appointed as Attorney-in-Fact by such Selling Stockholder pursuant to a validly existing and binding Power-of-Attorney which authorizes such Attorney-in-Fact to take such action.
Very truly yours,
JUNIPER NETWORKS, INC.
<u>By:</u>
Name:
Title:
LUCENT TECHNOLOGIES, INC NEWBRIDGE NETWORKS CORPORATION ANSHUTZ FAMILY INVESTMENT COMPANY LLC MCI WORLDCOM VENTURE FUND, INC.
<u>By:</u>
Name:
Title:
As Attorney-in-Fact acting on behalf of each of the Selling Stockholders named in Schedule II to this Agreement
Accepted as of the date hereof at New York, New York:
Goldman, Sachs & Co. Credit Suisse First Boston Corporation BancBoston Robertson Stephens Inc. Dain Rauscher Wessels, a division of Dain Rauscher Incorporated SG Cowen Securities Corporation Warburg Dillon Read LLC
<u>By:</u>
(Goldman, Sachs & Co.)

On behalf of each of the

Underwriters

SCHEDULE I

TOTAL NUMBER OF FIRM(SHARES MAXIMUM OPTION TO BE PURCHASED EXERCISED _____

NUMBER OF OPTIONAL SHARES TO BE PURCHASED IF _____

UNDERWRITER(a)

Goldman, Sachs & Co. Credit Suisse First Boston Corporation BancBoston Robertson Stephens Inc. Dain Rauscher Wessels, a division of Dain Rauscher Incorporated SG Cowen Securities Corporation Warburg Dillon Read LLC

Total	
(a) Each of these Underwriters has appointed	aging Director or Vice President Fact.

SCHEDULE II

	TOTAL NUMBER OF FIRM SHARES TO BE SOLD	NUMBER OF OPTIONAL SHARES TO BE SOLD IF MAXIMUM OPTION EXERCISED
The Company		
The Selling Stockholders:		
Lucent Technologies, Inc. Newbridge Networks Corporation Anshutz Family Investment Company LLC MCI WorldCom Venture Fund, Inc		
Total		
	========	=======

⁽a) The Selling Stockholders are represented by and have appointed Lisa C. Berry as their Attorney-in-Fact.

SCHEDULE III

LOCK-UP AGREEMENTS

ADDARIO, TONY

ERICSSON BUSINESS NETWORKS

FURGERSON, JOSEPH

GANI, MARCEL

GANI, MARCEL FOR THE GANI FAMILY TRUST

GANI, VICTOR FOR THE 1995 GANI IRREVOCABLE TRUST

HALEY, STEVEN

SR & KP HALEY CHARITABLE REMAINDER UNITRUST FOR CHRIS S. HALEY

SR & KP HALEY CHARITABLE REMAINDER UNITRUST FOR COURTNEY J. HALEY

SR & KP HALEY CHARITABLE REMAINDER UNITRUST FOR MATTHEW J. HALEY

STEVEN R. & KATHLEEN P. HALEY FAMILY FOUNDATION (GIVING) TRUST

HEIDENREICH, GARY L.

KLEINER PERKINS CAUFIELD & BYERS FUND VII

KPCB INFORMATION SCIENCES ZAIBATSU FUND II

HEARST, WILLIAM R. III

KHOSLA, VINOD

KRIENS, ERIC KRIENS AND DAVID BROOKS, TRUSTEES OF THE ANDREW JOHN KRIENS 1998 IRREVOCABLE TRUST DATED 05/08/98

KRIENS, ERIC KRIENS AND DAVID BROOKS, TRUSTEES OF THE KRIENS 1998 CHILDREN'S TRUST DATED 05/08/98

KRIENS, SCOTT

KRIENS, SCOTT AND JOAN KRIENS TRUSTEES, KRIENS 1996 TRUST U/T/A/OCT. 29, 1996

NEA PRESIDENTS FUND, LP

NEA ENTERPRISE ASSOCIATES VI, LIMITED PARTNERSHIP

NEA VENTURES 1996, LP

SINDHU, PRADEEP SINDHU, CUSTODIAN FOR ANTOINE SINDHU

SINDHU, PRADEEP SINDHU, CUSTODIAN FOR CAMILLE A. SINDHU

SINDHU, PRADEEP SINDHU, TRUSTEE OF PRADEEP SINDHU ANNUITY TRUST I U/I DTD. 06/11/99

SINDHU, PRADEEP SINDHU, TRUSTEE OF PRADEEP SINDHU ANNUITY TRUST II U/I DTD. 06/11/99

SINDHU, PRADEEP SINDHU, TRUSTEE OF PRADEEP SINDHU ANNUITY TRUST III U/I DTD. 06/11/99

SINDHU, PRADEEP SINDHU, TRUSTEE OF MARIE FRANCOISE BERTRAND ANNUITY TRUST I U/I DTD. 06/11/99

SINDHU, PRADEEP SINDHU, TRUSTEE OF MARIE FRANCOISE BERTRAND ANNUITY TRUST II U/I DTD. 06/11/99

SINDHU, PRADEEP SINDHU, TRUSTEE OF MARIE FRANCOISE BERTRAND ANNUITY TRUST III U/I DTD. 06/11/99

SINDHU, PRADEEP S.

STENSRUD, WILLIAM R.

STENSRUD FAMILY TRUST, WILLIAM STENSRUD TRUSTEE

WEXLER, PETER LEWIS

ANNEX I

FORM OF COMFORT LETTER

EXHIBIT 21.1

SUBSIDIARIES OF REGISTRANT

Name Jurisdiction of Incorporation

Juniper Networks K.K. Juniper Networks B.V.

Juniper Networks International Limited Juniper Networks FSC Inc.

Japan The Netherlands Cayman Barbados

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the references to our firm under the captions "Selected Consolidated Financial Data" and "Experts" and to the use of our report dated February 26, 1999, in the Registration Statement (Form S-1) and related Prospectus of Juniper Networks, Inc. for the registration of shares of its common stock

/s/ Ernst & Young LLP

Palo Alto, California

August 31, 1999

End of Filing



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