

# PROSPECTUS



## 6,250,000 Shares COMMON STOCK

---

*Advanced Switching Communications, Inc. is offering shares of its common stock. This is our initial public offering and no public market currently exists for our shares.*

---

*Our common stock has been approved for quotation on the Nasdaq National Market under the symbol "ASCX."*

---

*Investing in the common stock involves risks. See "Risk Factors" beginning on page 5.*

---

### PRICE \$15 A SHARE

	<u>Price to Public</u>	<u>Underwriting Discounts and Commissions</u>	<u>Proceeds to Company</u>
Per Share .....	\$15.00	\$1.05	\$13.95
Total .....	\$93,750,000	\$6,562,500	\$87,187,500

*Advanced Switching Communications, Inc. has granted the underwriters the right to purchase up to an additional 937,500 shares to cover over-allotments.*

*The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.*

*Morgan Stanley & Co. Incorporated expects to deliver the shares to purchasers on October 10, 2000.*

---

**MORGAN STANLEY DEAN WITTER**

**CHASE H&Q**

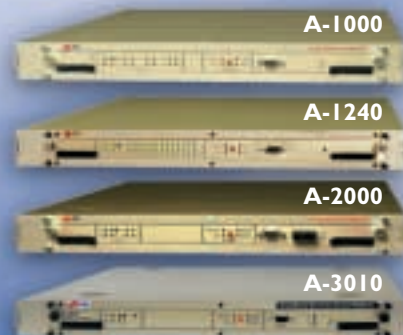
**ROBERTSON STEPHENS**

October 4, 2000

## **We develop and market broadband access products**

As the number of end-users increases, customers can stack individual systems and eventually move to our multi-slot products using the same cards.

### **Standalone systems**



**or cards  
in the A-4000**



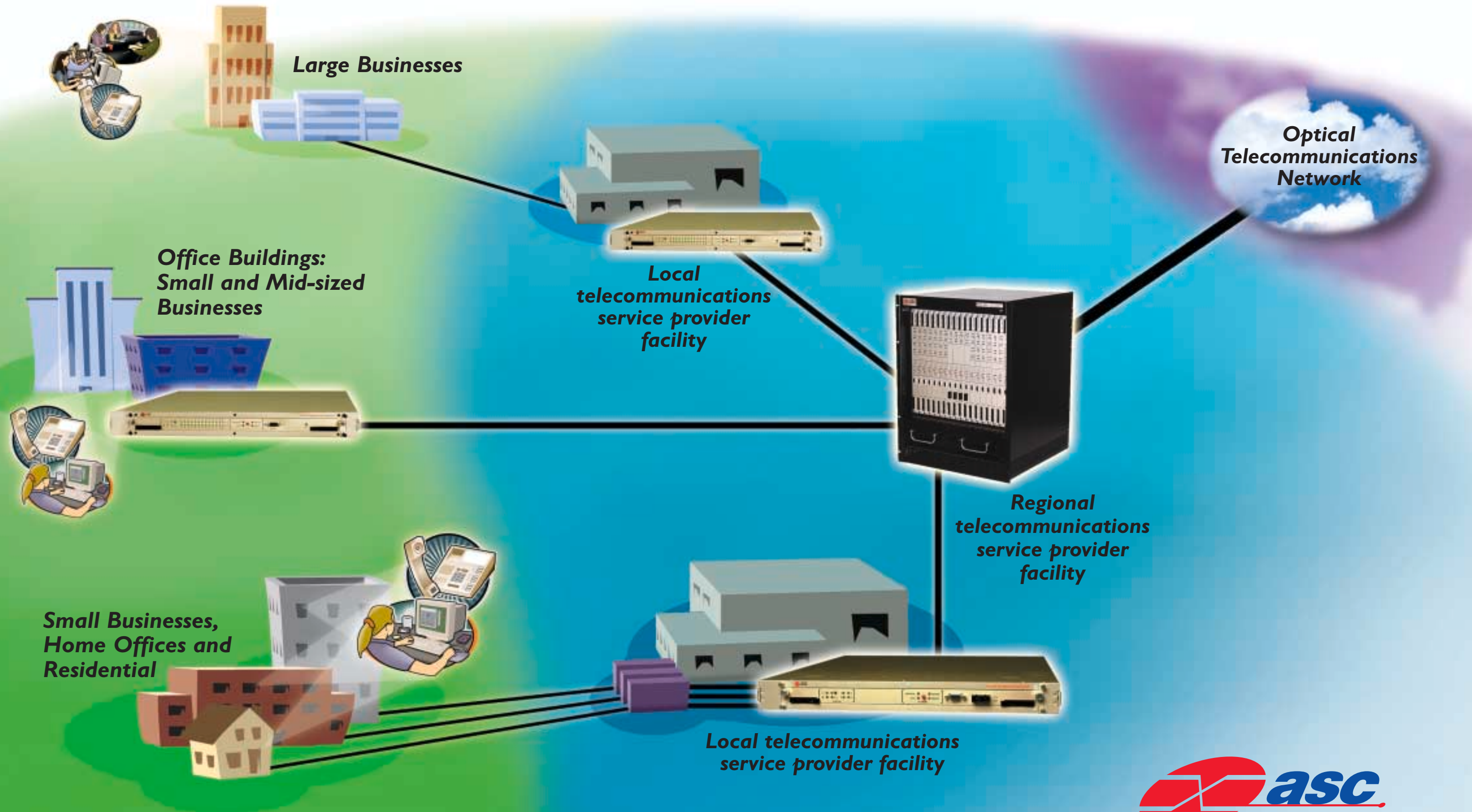
**More end-users ...**



**... higher speeds  
and expanded services**



# Our Product Applications



## TABLE OF CONTENTS

	<u>Page</u>		<u>Page</u>
Prospectus Summary .....	1	Management .....	40
Risk Factors .....	5	Certain Transactions .....	49
Special Note Regarding Forward-Looking Statements .....	13	Principal Stockholders .....	53
Use of Proceeds .....	14	Description of Securities .....	55
Dividend Policy .....	14	Shares Eligible for Future Sale .....	58
Capitalization .....	15	United States Tax Consequences to Non- United States Holders .....	60
Dilution .....	16	Underwriters .....	64
Selected Financial Data .....	17	Legal Matters .....	66
Management's Discussion and Analysis of Financial Condition and Results of Operations .....	19	Experts .....	66
Business .....	27	Where You Can Find More Information ..	66
		Index to Financial Statements .....	F-1

---

Until October 29, 2000, 25 days after commencement of this offering, all dealers that buy, sell or trade shares, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.



## PROSPECTUS SUMMARY

*You should read the following summary together with the more detailed information regarding our company and the common stock being sold in this offering and our financial statements and notes thereto appearing elsewhere in this prospectus.*

### **Advanced Switching Communications, Inc.**

We design and market a line of products that enable telecommunications service providers to offer high speed, or broadband, services to end-users. Our broadband access platforms are compact and software-configurable products that enable our customers to transmit voice, data and multimedia communications traffic more rapidly and cost-effectively while preserving their investments in existing communications systems. In response to the rapid increase in data communications traffic driven by the growth of the Internet and worldwide deregulation, telecommunications service providers are rapidly building advanced packet-based networks. Packet-based networks, which transport communications traffic in small bundles, or “packets,” offer a significantly more flexible, cost-effective and efficient means for providing communications services than existing circuit-based networks, which were designed years ago to carry telephone calls. Telecommunications service providers typically situate high-speed packet transmission equipment at the core or backbone of their networks, but rely on voice-oriented technology for their access networks. Our products are deployed at the entry points to a telecommunications network. These sites, which serve as staging areas for the delivery of telecommunications services to the end-user, are called central offices for local telephone companies or points of presence for most other telecommunications service providers. By extending the benefits of packet technology beyond the network core, our products reduce transmission and operating costs, increase the efficiency of core network equipment, provide access to fiber optic core networks and allow our customers to develop networks for broadband services. We market our products to telecommunications service providers worldwide, focusing on established as well as emerging carriers, multi-tenant unit service providers and digital subscriber line service providers. We currently have 27 customers in three market segments. Broadband Office, 2nd Century Communications and Access Lan accounted for 53%, 11% and 10% of our revenue, respectively, for the six months ended June 30, 2000. We sell our products primarily through a direct sales force. We also increase awareness and customer acceptance of our products through strategic relationships with original equipment manufacturers, distributors and resellers.

We designed our product line to meet the requirements of broadband service providers worldwide. Our products offer the following benefits and features:

- *Enhanced Revenue Opportunities.* Our product design and multi-service capabilities enable service providers to efficiently add services and quickly penetrate new markets to capitalize on new revenue opportunities, with relatively low initial investment.
- *Highly Scalable Product Architecture.* Our products are designed to proportionally meet our customers’ network requirements. In small markets, a customer can deploy services with a single card in a stackable platform and add platforms as demand grows. In large markets, customers can deploy our multiple card system using the same individual cards from the stackable platforms.
- *Multi-Service Capabilities.* Our products’ ports, which transmit and receive data to and from physical access lines, are software-configurable, which means that they eliminate the need for service providers to predetermine the number of ports dedicated to each specific service. Service providers that use our products can set up or change the services supported on individual ports from a remote computer terminal. This enables our customers to quickly add services, with minimal service disruption and without dispatching personnel to physically change an end user’s connection.
- *Reduced Operating Costs.* Our products convert different end-user services to a single format for transmission to the core network, eliminating the need to deploy multiple core networks, one for each service offered. Our products also aggregate the local access lines that carry these services into fewer

high-speed optical or electrical connections to the core network, allowing core network equipment to operate more efficiently. This service conversion and access line aggregation reduces the costs of building and operating a service provider network.

- *Interoperability with Existing Systems.* Our products comply with stringent network facility standards for central office equipment and operate with leading core network components, allowing service providers to capitalize on the value of their existing investments. Our products utilize industry standard protocols and have built-in software flexibility to add new protocols as they are adopted and standardized in the marketplace.
- *Space and Physical Design Advantages.* Our equipment's compact design and high port density of our equipment means that it occupies minimal space at central offices, multi-tenant unit office buildings, or other points of presence. In addition, the lower power requirements and the low heat output of our products allow service providers to deploy services to locations previously excluded from the network because of the physical limitations of the space.

Our objective is to become a leading provider of broadband access platforms for integrated voice, data and multimedia services. To achieve our objective, we intend to:

- broaden our customer base domestically and internationally;
- leverage our technology leadership from the access network into the network core;
- provide our customers with a smooth migration path to next-generation network architectures;
- expand our global sales efforts and our customer service and support capabilities; and
- continue to outsource our product manufacturing.

Given our limited operating history and the competitive environment in our industry, we may face a number of difficulties in achieving our objective. Prior to 1999, we were a development stage company principally engaged in research and development. We shipped our first product in March 1999. We depend on a single contract manufacturer to manufacture substantially all of our products. We derive a substantial portion of our revenue from a limited number of customers. We have incurred significant losses since our inception and as of June 30, 2000 we had an accumulated deficit of \$25.6 million. We expect to continue to incur net losses. For a discussion of these and other risks that may adversely affect our ability to become a leading provider of broadband access platforms, see "Risk Factors" beginning on page 5.

We were incorporated in 1997 under the laws of the State of Delaware. Our headquarters are located at 8330 Boone Boulevard, Vienna, Virginia 22182, and our telephone number is (703) 448-5540. Our website address is [www.asc.com](http://www.asc.com). The information contained on our website is not part of this prospectus.

---

Except as otherwise indicated, information in this prospectus is based on the following assumptions:

- all outstanding shares of our redeemable convertible preferred stock will be converted into shares of common stock immediately prior to the completion of this offering;
- the underwriters will not exercise their over-allotment option; and
- we will file our amended and restated certificate of incorporation upon the completion of this offering.

## THE OFFERING

Common stock offered .....	6,250,000 shares
Common stock to be outstanding after the offering .....	41,115,883 shares
Over-allotment option .....	937,500 shares
Use of proceeds .....	We intend to use the net proceeds for working capital and other general corporate purposes. See "Use of Proceeds" on page 14
Nasdaq National Market symbol .....	ASCX

The foregoing information is based upon shares outstanding as of September 30, 2000 and excludes:

- 5,422,245 shares of common stock issuable upon the exercise of options outstanding as of September 30, 2000 with a weighted average exercise price of \$4.48 per share;
- 359,000 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2000 with a weighted average exercise price of \$10.61 per share;
- 4,736,755 shares of common stock reserved for additional option grants under our stock plans as of September 30, 2000; and
- additional shares of common stock issuable upon conversion of our outstanding preferred stock in respect of dividends accruing after September 30, 2000.

---

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. We are offering to sell shares of common stock and seeking offers to buy shares of common stock, only in jurisdictions where offers and sales are permitted.

## SUMMARY FINANCIAL DATA

	Period from Inception (September 10, 1997) through December 31, 1997	Year Ended December 31,		Six Months Ended June 30,	
		1998	1999	1999	2000
	(in thousands, except per share data)				
<b>Statement of Operations Data:</b>					
Revenue .....	\$ —	\$ —	\$ 4,278	\$ 402	\$ 12,933
Gross profit .....	—	—	1,439	65	3,377
Loss from operations .....	(309)	(5,127)	(9,781)	(4,732)	(10,146)
Net loss .....	(293)	(5,111)	(9,329)	(4,640)	(9,090)
Accretion of transaction costs and accrued dividends on redeemable convertible preferred stock.....	—	(367)	(2,589)	(482)	(2,815)
Net loss applicable to common shareholders	<u>\$ (293)</u>	<u>\$ (5,478)</u>	<u>\$ (11,918)</u>	<u>\$ (5,122)</u>	<u>\$ (11,905)</u>
Basic and diluted net loss per share .....	<u>\$ (0.05)</u>	<u>\$ (0.48)</u>	<u>\$ (1.01)</u>	<u>\$ (0.43)</u>	<u>\$ (1.03)</u>
Shares used in computing net loss per share	<u>5,742</u>	<u>11,389</u>	<u>11,789</u>	<u>11,958</u>	<u>11,601</u>
Pro forma basic and diluted net loss per share(1) .....			<u>\$ (0.38)</u>		<u>\$ (0.28)</u>
Shares used in computing pro forma basic and diluted net loss per share(1) .....			24,251		32,462

### As of June 30, 2000

	Actual	Pro Forma (2)	Pro Forma As Adjusted (3)
		(in thousands)	
<b>Balance Sheet Data:</b>			
Cash and cash equivalents . . . . .	\$ 5,464	\$ 5,464	\$ 91,452
Working capital . . . . .	20,082	20,082	106,070
Total assets . . . . .	43,952	43,952	129,940
Long-term debt, less current portion . . . . .	37	37	37
Redeemable convertible preferred stock . . . . .	58,383	—	—
Total stockholders' equity (deficit) . . . . .	(25,371)	33,012	119,000

- (1) Pro forma net loss per share for the year ended December 31, 1999 and the six months ended June 30, 2000 is computed using the weighted average number of common shares outstanding, including the pro forma effects of the automatic conversion of our outstanding preferred stock into shares of common stock effective upon the completion of this offering as if such conversion occurred on January 1, 1999, or at date of original issuance, if later.
- (2) Pro forma to give effect to the conversion of all issued and outstanding shares of redeemable convertible preferred stock into common stock.
- (3) As adjusted to reflect the sale of 6,250,000 shares of common stock offered hereby at the initial public offering price of \$15 per share after deducting the underwriting discount and estimated offering expenses payable by us. See "Use of Proceeds" on page 14 for more information on our intended use of the proceeds from this offering and "Capitalization" on page 15 for more information on our capital structure.



## **RISK FACTORS**

*You should carefully consider the risks described below before making a decision to invest in our common stock.*

### **Risks Related To Our Business And Financial Performance**

#### ***Our Limited Operating History May Make It Difficult To Value And Evaluate Our Business And Our Future Prospects***

We commenced operations in September 1997 and commercially released our first product in the first quarter of 1999. Your evaluation of the risks and uncertainties of our business will be difficult because of our limited operating history. In addition, our limited operating history means that we have less insight into how technological and market trends may affect our business. The revenue and income potential of our business and market are unproven. You must consider our business and prospects in light of the risks and difficulties typically encountered by companies in their early stages of development, particularly those in new, rapidly evolving and highly competitive markets such as the market for broadband access solutions.

#### ***We Have Incurred Substantial Losses To Date And May Not Be Able To Achieve Or Maintain Profitability, Which Could Cause Our Stock Price To Decline***

Since we began operations, we have incurred net losses in every fiscal period. We incurred a net loss of \$9.1 million in the first six months of 2000 and our accumulated deficit through June 30, 2000 was \$25.6 million. We expect to incur net losses in the future. Our operating losses have been due in part to the commitment of significant resources to our research and development and sales and marketing organizations. We expect our expenses to continue to increase in an effort to develop our business and, as a result, we will need to generate significant revenue to achieve profitability. We cannot be certain if or when we will become profitable. Our failure to become profitable within the timeframe expected by investors may adversely affect the market price of our common stock.

#### ***Unexpected Fluctuations In Our Operating Results May Cause Our Stock Price To Decline***

Our operating results are difficult to forecast and may fluctuate significantly from quarter to quarter. As a result of our limited operating history, we do not have historical financial data for a significant number of periods upon which to forecast quarterly financial performance. It is likely that in some future quarters, our operating results may fall below the expectations of investors or securities analysts, which could cause the price of our common stock to fall substantially.

#### ***If We Fail To Increase Our Revenue, Or If We Experience Delays In Generating Revenue, We Will Continue To Incur Substantial Operating Losses.***

We plan to significantly increase our operating expense 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 capabilities to address the demands resulting from this offering and the continued growth of our business. Our operating expenses are largely based on anticipated personnel requirements and revenue trends, and a high percentage of our expenses are, and will continue to be, fixed. In addition, we may be required to spend more in research and development than originally budgeted in order to respond to industry trends. As a result, if we fail to increase our revenue, or if we experience delays in generating revenue, we will continue to incur substantial operating losses.

#### ***There Is Intense Competition In The Market For Broadband Access Solutions And If We Fail To Compete Successfully, Our Revenue Could Decline And We Could Experience Additional Losses***

The market for broadband access solutions is new, rapidly evolving and very competitive. We expect competition in this market to increase as a result of a number of factors, including the entrance of new or larger competitors and the introduction of new products or technologies. This competition could, among other things:

- divert sales from us;
- force us to charge lower prices; and

- adversely affect our strategic relationships with manufacturers, resellers and others.

If any of these risks occurred, our revenues could decline, our gross margins could decrease, our expenses could increase and we could experience additional losses. Our principal competitors may be different depending on the market we target, and include large networking equipment companies such as Alcatel, Cisco Systems, Lucent Technologies, Marconi(Fore) and Nortel Networks, as well as companies such as Accelerated Networks, ADC Kentrox, and Tiara Networks.

Many of our current and potential competitors are large public companies that have longer operating histories and significantly greater financial, technical, marketing and other resources than we do. As a result, these competitors are able to devote greater resources to the development, promotion, sale and support of their products. In addition, competitors with large market capitalization or cash reserves are much better positioned than we are to acquire other companies, including our competitors, and thereby acquire new technologies or products that may displace our product lines.

***We Purchase Several Of Our Key Components From Single Sources, And We Could Lose Revenue And Market Share If We Are Unable To Obtain A Sufficient Supply Of Those Components***

Several key components of our products are currently available from single or limited sources with whom we have no guaranteed supply agreements, including:

- programmable chips supplied by Lucent Technologies;
- asynchronous transfer mode, or ATM, chips supplied by Conexant Systems Inc.; and
- circuit emulation chips supplied by PMC-Sierra, Inc.

If we are unable to obtain a sufficient supply of these or other critical components from our current vendors:

- we may be unable to manufacture and ship our products on a timely basis, which could result in lost or delayed revenue, harm to our reputation, increased manufacturing costs and exposure to claims by our customers; and
- we may be forced either to develop alternative sources of supply or to modify the design of our products to use more readily available components, which may take a long time and may involve significant additional expense.

For example, during the first quarter of 2000, we encountered delays in receiving programmable chips used in our A-1240 product, which resulted in production delays. In addition, our vendors may increase their prices for these components. Accordingly, the lack of alternative sources for these components may also force us to pay higher prices for these components, which would cause our gross margins to decrease.

***We Are Entirely Dependent On Our Line Of Broadband Access Platform Products And Our Products May Not Be Readily Accepted***

Widespread commercial acceptance of our products is critical to our future success. To date, our A-1000, A-2000, A-1240, A-3010 and A-4000 products are the only products that we have sold and we expect that revenue from these products will account for a substantial portion of our revenue for the foreseeable future. We intend to develop and introduce new products and enhancements to existing products in the future. If our target customers do not adopt, purchase and successfully deploy our current and planned products, our revenue will not grow significantly. The acceptance of our products may be hindered by:

- the failure of prospective customers to recognize the value of broadband access platform products;
- the reluctance of our prospective customers to replace or expand their current access equipment, which may be supplied by more established vendors, with our products; and
- the emergence of new technologies or industry standards that could cause our products to be less competitive or become obsolete.

***Because Most Of Our Sales Are Made Under Short-Term Purchase Orders, We May Expend Significant Resources And Be Unable To Recover The Costs If Our Customers Fail To Purchase Additional Products***

Our contracts and purchase orders are separately negotiated with each of our customers and the terms may vary widely. A majority of our sales are made under short-term purchase orders for one or a few of our products at one time instead of long-term contracts for large scale deployment of our products. These purchase orders do not ensure that they will purchase any additional products other than those specifically listed in the order. Moreover, since we believe that these purchase orders represent the early portion of longer term customer programs, we expend significant financial and personnel resources and expand our operations to be able to fulfill these programs. If our customers fail to purchase additional products to expand their programs as we expect, we may be unable to recover the costs we incurred.

***Our Customer Contracts Allow Our Customers To Terminate Without Significant Penalties***

Our contracts are generally non-exclusive and contain provisions allowing our customers to terminate them without significant penalties. Our contracts also may specify the achievement of shipment, delivery and installation commitments. We are generally able to meet these commitments or negotiate extensions with our customers. However, if we fail to meet these commitments in a timely manner, our customers may choose to terminate their contracts with us or impose monetary penalties. If our customers elect to terminate their contracts with us, our future revenues would be reduced.

***We Depend Upon A Single Contract Manufacturer To Manufacture Substantially All Of Our Products. If That Manufacturer Is Unable Or Unwilling To Manufacture A Sufficient Quantity Of Our Products, Our Revenue May Decline And Our Customer Relationships May Be Damaged***

We currently subcontract the manufacturing and testing of substantially all of our products to Benchmark Electronics, an independent manufacturer with whom we have no long-term agreement. Our reliance on a single manufacturer exposes us to a number of risks, including reduced control over manufacturing capacity, product completion and delivery times, product quality and manufacturing costs. If, as we anticipate, we experience increased demand for our products and introduce new products and product enhancements, the challenges we face in managing our relationship with Benchmark will be increased. If Benchmark is unable or unwilling to manufacture a sufficient quantity of products for us, on the time schedules and with the quality that we demand:

- we may not be able to fulfill customer orders on a timely basis; and
- we may be forced to engage additional or replacement manufacturers, which is expensive and time consuming.

If that occurs, our revenue may decline and our customer relationships may be damaged.

***If We Fail To Predict Our Manufacturing And Component Requirements Accurately, We Could Incur Additional Costs Or Experience Manufacturing Delays***

We provide forecasts of our demand to our contract manufacturer and component vendors up to six months prior to scheduled delivery of products to our customers. If we overestimate our requirements, we may have excess inventory, which could increase our costs and harm our relationships with our contract manufacturer and component vendors by reducing our future orders. If we underestimate our requirements, we may have an inadequate inventory of components. Inadequate inventory could interrupt manufacturing of our products and result in delays in shipments. In addition, lead times for materials and components that we order are long and depend on factors such as the procedures of, or contract terms with, a specific supplier and demand for each component at a given time. In the case of some components in short supply, component vendors have imposed strict allocations that limit the number of these components they will supply to a given customer in a specified time period. These vendors may choose to increase allocations to larger, more established companies, which could reduce our allocations and harm our ability to manufacture our products.

***Due To The Long And Unpredictable Sales Cycle For Our Products, The Timing Of Revenue Is Difficult To Predict And May Cause Our Operating Results To Fluctuate Unexpectedly***

The sales and deployment cycle for our products is lengthy and varies substantially from customer to customer; it may extend for six months or more. The length of our sales cycle may cause our revenue and

operating results to vary unexpectedly from quarter to quarter. A customer's decision to purchase our products involves a significant commitment of its resources and a lengthy evaluation and product qualification process. Consequently, we may incur substantial expenses and devote senior management attention to potential relationships that never materialize, in which event our investments will largely be lost and we may miss other opportunities.

***Because We Derive A Substantial Portion Of Our Revenue From A Limited Number Of Customers, Any Loss Of Or Delay In Receiving Revenue From Those Customers Could Significantly Damage Our Financial Performance***

We have historically derived a significant portion of our revenue from a relatively small number of customers. If any of these customers stop or delay purchasing products or services from us, our financial performance would be negatively impacted. For the year ended December 31, 1999, 2nd Century Communications and AccessLan accounted for 22% and 53% of our revenue. These same customers accounted for 11% and 10% of our revenue for the six months ended June 30, 2000. One additional customer, Broadband Office, accounted for 53% of our revenue for the six months ended June 30, 2000. Most of our customers are not contractually obligated to purchase future products or services from us, and they may discontinue doing so at any time. In addition, although our largest customers will probably vary from period to period, we anticipate that a small number of customers will continue to represent a large percentage of our revenue in any given fiscal period. Accordingly, the failure to obtain a significant order from a customer within the fiscal period expected by us could have a significant adverse effect on our financial performance for that fiscal period.

***We Anticipate That The Average Selling Prices Of Our Products Will Decline, Which Could Reduce Our Gross Margins And Revenue***

Our industry has experienced rapid erosion of average product selling prices. We anticipate that the average selling prices of our products will decline in response to competitive pressures, increased sales discounts, new product introductions by our competitors or other factors. We are seeking to improve our product design to reduce our costs and increase our sales. If we are unable to do so, declines in average selling prices will reduce our gross margins and revenue.

***If Network Service Providers Choose A Protocol Other Than ATM For Their Core Networks And We Are Not Able To Adapt To The Change, Our Target Market Could Be Reduced***

While we have designed a product that is adaptable to many communications protocols, our initial architecture is based on an ATM infrastructure. In the service providers' networks ATM competes with other protocols such as time division multiplexing (TDM) and Internet protocol (IP). We believe that an eventual migration to an IP-based protocol is possible. To the extent that network service providers choose a protocol other than ATM for their core networks, we may not be able to react in time or adapt to the change and our target market could be substantially reduced.

***If We Are Not Successful In Developing And Marketing, Or If We Are Delayed In Introducing, New and Enhanced Products And Features That Keep Pace With Technology And Our Customers' Needs and Expectations, Our Sales And Competitive Position Will Suffer***

The market for broadband access solutions is characterized by rapidly changing technologies, frequent new product introductions and evolving customer requirements and industry standards. In order to remain competitive, we will need to introduce on a timely basis new products or product enhancements that offer significantly improved performance and features, at lower prices, and we may not be successful in doing so. Some prior versions of our products were released behind schedule, and this may happen again in the future. Delays in introducing new products and features, or the introduction of new products which do not meet the evolving demands of our customers, could damage our reputation and cause a loss of or delay in revenue.

***If We Do Not Expand Our Direct And Indirect Sales Channels, We May Be Unable To Increase Market Awareness And Sales Of Our Products, Which May Prevent Us From Achieving And Maintaining Profitability***

Our products and services require a technical sales effort targeted at several key people within each of our prospective customers' organizations. Our sales efforts require the attention of sales personnel and specialized system engineers with extensive experience in networking technologies. Competition for these individuals is

intense, and we may not be able to hire sufficient numbers of qualified sales personnel and specialized system engineers. We also plan to expand our relationships with resellers and original equipment manufacturers. If we fail to develop or cultivate relationships with significant resellers or original equipment manufacturers, or if these resellers and original equipment manufacturers are not successful in their sales efforts, our business may be harmed. Many of our resellers also sell our competitors' products. Failure to expand these channels could adversely affect our revenues and operating results.

***If We Do Not Expand Our Customer Service And Support Organization, We May Be Unable To Increase Our Sales***

In response to our growing base of product installations, we will need to increase our customer service and support organization to support new and existing customers. We generally do not enter into service contracts as part of our sales process, and our products have not required extensive servicing to date. However, as our product base continues to expand, we intend to offer an enhanced level of customer support on a post-product sale basis both to generate additional revenue opportunities and to distinguish us from our competitors. Our products are complex and require highly-trained customer service and support personnel. Hiring customer service and support personnel is difficult in our industry due to the limited number of people available with the necessary technical skills. If we are unable to expand our customer service and support organization and train our personnel rapidly, we may not be able to increase sales.

***If We Are Not Able To Hire And Retain Qualified Personnel, Or If We Lose Key Personnel, We May Be Unable To Manage Or Grow Our Business***

The growth of our business and revenue depends in large part upon our ability to attract and retain sufficient numbers of highly skilled employees, particularly qualified sales and engineering personnel. Qualified personnel are in great demand throughout our industry, particularly in the Washington, D.C. metropolitan area. We may not be successful in hiring and retaining the skilled personnel that we need.

Our future success also depends to a significant degree on the skills and efforts of Asghar Mostafa, our co-founder, Chairman of the Board and Chief Executive Officer, and on the ability of our other executive officers and members of senior management to work effectively as a team. The loss of the services of Mr. Mostafa or one or more of our other executive officers or senior management members could have a material adverse effect on our financial performance and ability to compete.

***Our Company Is Growing Rapidly And We May Be Unable To Manage Our Growth Effectively, Which Could Result In Lost Sales Or Disruptions To Our Business***

Our failure to effectively manage our recent and anticipated growth could have a material adverse effect on the quality of our products, our ability to retain key personnel and our financial performance. From June 30, 1999 to June 30, 2000, the number of our employees increased from 50 to 122. In addition, the proceeds of this offering will be used in part to further expand our operations and increase the number of our employees. This growth has strained, and may further strain, our management, operational systems and other resources. To manage our growth effectively, we must be able to enhance our financial and accounting systems and controls, integrate new personnel and manage expanded operations. We may not be able to do so.

***We Are Beginning To Expand Our International Business, Which Exposes Us To Additional Risks That We Do Not Face In Our U.S. Business***

In 1999, we derived approximately 10% of our revenue from sales outside the United States, and we expect that percentage to increase as our business grows. An expanded international business exposes us to a number of risks that we do not have to address in our U.S. operations. These risks include:

- longer sales cycles;
- challenges and costs inherent in managing geographically dispersed operations;
- protectionist laws and business practices that favor local competitors;
- difficulties in finding and managing local resellers;
- diverse and changing governmental laws and regulations, including greater regulation of the telecommunications industry; and



- foreign currency exchange rate fluctuations.

If we are unsuccessful in addressing these risks, our international business will not achieve the revenue or profits we expect.

***If Our Products Do Not Comply With Evolving Industry Standards, We May Lose Sales And Incur Additional Expenses***

Our success depends in part on both the adoption of industry standards for technologies in the broadband access solutions market and our products' compliance with those industry standards as different standards emerge, evolve and achieve acceptance. The absence of industry standards for a particular technology may prevent widespread adoption of products based on that technology. In addition, because many technological developments occur prior to the adoption of related industry standards, we may develop products that do not comply with the industry standards that are eventually adopted, which would hinder our ability to sell those products. Moreover, if a competitor obtains a leadership position in selling broadband access products, that competitor may have the ability to establish de facto standards within the industry.

***If Our Products Contain Defects Or Fail To Perform Properly Or Work Effectively With Our Customers' Networks, We Could Lose Revenue And Incur Damage To Our Reputation And Liability To Our Customers***

Our products must work effectively with our customers' existing networks, which typically include products from a variety of different vendors and utilize multiple protocol standards. The complexity of these networks makes it difficult for us to ensure that our products will function properly within these networks and also makes it difficult for us to identify the source of any problems which occur in the operation of our products. Despite testing by us and our customers, our products may contain undetected software or hardware errors which result in product failures or poor product performance. We have experienced such errors in the past in connection with new products and product upgrades. We expect that such errors will be found from time to time in new or enhanced products after we have already shipped the products. If our products contain defects or fail to work properly, we may:

- suffer a loss of or delay in revenue;
- incur additional expenses in our efforts to identify and remedy the problems;
- suffer damage to our reputation; and
- be exposed to damage claims by our customers.

***Claims By Nortel Networks Or Other Companies That We Are Infringing Their Proprietary Rights Could Hinder Or Block Our Ability To Sell Our Products, Subject Us To Significant Monetary Liability And Divert The Time And Attention Of Our Management***

The broadband access equipment industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the data communications and networking markets have extensive patent portfolios with respect to networking technology. We recently received a letter from Nortel Networks Corporation alleging that a specific feature of our products infringes one of Nortel's patents relating to inverse multiplexing over ATM. We believe that our products do not infringe the relevant Nortel patent and we intend to contest this claim vigorously. However, we cannot assure you that we will prevail in our objection to this claim or any other claim Nortel may make with respect to other patents it owns, nor can we assure you that this dispute will not result in litigation or that an adverse result or judgment will not adversely affect our financial condition. The Nortel claim could be time-consuming, result in costly litigation and diversion of technical and management personnel, or require us to develop non-infringing technology. If Nortel succeeds in its claim, we would need to enter into royalty or license agreements. These royalty or license agreements, if required, may not be available on acceptable terms, if at all.

We expect that we may increasingly be subject to infringement claims as the numbers of products and competitors in the market for broadband access equipment grows and the functionality of products overlaps. If there is a successful claim of infringement or if we fail to develop non-infringing technology or license proprietary rights on a timely basis that may become necessary, our ability to use technologies, products, and brand names may be limited and our business may be harmed.

***Our Competitive Position Would Be Adversely Affected If We Were Unable To Protect Our Proprietary Rights***

Our success and competitiveness are dependent to a significant degree on the protection of our proprietary rights. We rely primarily on a combination of copyrights, trademarks, trade secret laws and contractual restrictions and, to a lesser extent, on patents to protect our proprietary rights. We have one U.S. patent, and we have filed a corresponding application under the Patent Cooperation Treaty relating to the management of tunneling protocols. There can be no assurance that these patent applications will be approved, that any issued patents will protect our intellectual property or that third parties will not challenge them. We 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 these precautions, we cannot guarantee that the steps we have taken to protect our proprietary rights will be adequate to deter misappropriation of our intellectual property. Others may be able to copy or reverse engineer aspects of our products, to obtain and use information that we regard as proprietary or to independently develop similar technology. If we are unable to protect our trademarks and other proprietary rights against unauthorized use by others, our reputation and brand name may be damaged and our competitive position may be significantly harmed.

***If We Make Acquisitions Or Strategic Investments, Our Stockholders Could Be Diluted, We Could Incur Additional Debt, And We Could Assume Additional Contingent Liabilities***

We intend to consider investments in complementary companies, products or technologies. While we have no current agreements to do so, we may buy businesses, products or technologies in the future. If we make an acquisition or investment, we may:

- issue stock that would dilute your stock ownership;
- incur debt which would restrict our cash flow;
- assume liabilities which may result in additional costs;
- incur amortization expenses related to goodwill and other intangible assets; or
- incur large and immediate write-offs.

***We May Not Be Able To Successfully Integrate Or Manage The Acquisitions Or Investments We Make***

We have not completed any acquisitions or investments to date, so, as a company, we have no experience in this area. Therefore, acquisitions or investments made by us could 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 purchased organizations.

We may not be able to successfully integrate businesses, products, technologies or personnel that we might acquire in the future. Any failure to do so could disrupt our business and seriously harm our financial condition.

***We May Need Additional Capital To Fund Our Operations, Which May Not Be Available***

At June 30, 2000, we had approximately \$25.5 million in cash, cash equivalents and marketable securities. We believe that these amounts, combined with proceeds from this offering and cash anticipated to be available from future operations, will enable us to meet our working capital and capital expenditure requirements for at least the next 12 months. However, if cash from available sources is insufficient, or if cash is used to acquire complementary companies, products or technologies, or for other uses not presently planned, we may need additional capital. The development and marketing of new and enhanced products and the expansion of our sales channels and associated support personnel will require a significant commitment of

resources. In addition, if the market for broadband access solutions develops at a slower pace than anticipated or if we fail to establish significant market share and achieve a meaningful level of revenue, we may continue to incur significant operating losses and utilize significant amounts of capital. As a result, we could be required to raise substantial additional capital. Additional capital may not be available to us at all, or if available, may be available only on unfavorable terms. Any inability to raise additional capital when we require it would materially adversely affect our business, results of operations and financial condition.

## **Risks Related To The Securities Markets And This Offering**

### ***Stock Market Volatility Has Increased, Making Your Investment More Risky***

The price at which our common stock will trade following this offering is likely to be highly volatile and may fluctuate substantially. The price of the common stock that will prevail in the market after this offering may be higher or lower than the price you pay, depending on many factors, some of which are beyond our control. In particular, given the limited amount of our product sales and our limited number of customers, the announcement of any significant customer developments, awards or losses or of any significant partnerships or acquisitions by us or our competitors could have a material adverse effect on our stock price. In addition, the stock markets, particularly the Nasdaq National Market, on which we expect our common stock to be listed, have experienced extreme price and volume fluctuations. These fluctuations have particularly affected the market prices of equity securities of technology related companies and have often been unrelated or disproportionate to the operating performance of those companies.

### ***The Significant Concentration Of Ownership Of Our Common Stock Will Limit Your Ability To Influence Corporate Actions***

Immediately following this offering, our executive officers, directors and their affiliates will together own approximately 71% of our outstanding common stock. As a result, those stockholders, if they act together, will be able to determine the outcome of the vote on any matter requiring stockholder approval, including the election of directors and the approval of significant corporate transactions. This concentration of ownership may have the effect of delaying, preventing or deterring a change in control of our company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might affect the market price of our common stock.

### ***Some Provisions Of Our Charter And By-Laws May Delay Or Prevent Transactions That Many Stockholders May Favor***

Some provisions of our certificate of incorporation and by-laws may have the effect of delaying, discouraging, or preventing a merger or acquisition that our stockholders may consider favorable, including transactions in which stockholders might receive a premium for their shares. These provisions include:

- authorization of the issuance of “blank check” preferred stock without the need for action by stockholders;
- a classified board of directors with staggered three-year terms;
- inability of stockholders to call special meetings of stockholders or act by written consent; and
- advance notice requirements for proposing matters that can be acted on by stockholders at stockholder meetings.

Some provisions of Delaware law may also discourage, delay or prevent someone from acquiring us or merging with us. See “Description of Securities — Delaware Law and Certain Charter and By-Law Provisions; Anti-Takeover Effects” on page 56 for more detailed information on these provisions.

***Substantial Future Sales Of Our Common Stock In The Public Market Could Cause The Market Price Of Our Common Stock To Fall***

Additional sales of our common stock in the public market after this offering, or the perception that such sales could occur, could cause the market price of our common stock to decline. Upon completion of this offering, we will have 41,115,883 shares of common stock outstanding. See “Prospectus Summary — The Offering” on page 3 for a detailed discussion of shares included and excluded from this number. The 6,250,000 shares sold in this offering will be freely transferable without restriction or registration under the Securities Act of 1933. Based on shares outstanding as of September 30, 2000, the remaining shares of common stock outstanding after this offering will be available for sale as follows:

<u>Days After Date of This Prospectus</u>	<u>Approximate Shares Eligible for Future Sale</u>	<u>Comment</u>
90 days after effectiveness . . . . .	79,500	Eligible for sale under Rule 144 or Rule 701
180 days after effectiveness . . . . .	34,786,383	Eligible for sale upon expiration of lock-up

In addition, Morgan Stanley & Co. Incorporated may, in its sole discretion, at any time without notice, release all or any portion of the shares subject to the lock-up agreements, which would result in more shares being available for sale in the public market at an earlier date. Sales of common stock by existing stockholders in the public market, or the availability of these shares for sale, could materially and adversely affect the market price of our common stock.

In addition, as soon as practicable after the date of this prospectus, we intend to file a registration statement on Form S-8 with the Securities and Exchange Commission covering the shares of common stock reserved for issuance under our stock option plans. Based on shares and options outstanding as of September 30, 2000, approximately 4,736,755 shares of common stock will be reserved for issuance under our stock option plans on the effective date of this offering. On the date 180 days after the effective date of this offering, at least 1,475,864 shares will be subject to immediately exercisable options, based on options outstanding on September 30, 2000. Sales of a large number of these shares could have an adverse effect on the market price for our common stock.

After this offering, the holders of 20,738,045 shares of common stock, including shares issuable upon exercise of warrants which will be outstanding immediately after the consummation of this offering, will have certain rights with respect to registration of such shares for sale to the public. If such holders, by exercising their registration rights, cause a large number of securities to be registered and sold in the public market, such sales could have an adverse effect on the market price for our common stock. If we were to include in a company-initiated registration statement shares held by these holders pursuant to the exercise of their registration rights, these sales may have an adverse effect on our ability to raise needed capital. See “Shares Eligible for Future Sale” beginning on page 58 for further details regarding the number of shares eligible for sale in the public market after this offering.

**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains forward-looking statements that relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intend,” “potential” or “continue” or the negative of such terms or other comparable terminology. These statements are only predictions. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including the risks outlined under “Risk Factors” beginning on page 5 and elsewhere in this prospectus.

## **USE OF PROCEEDS**

We estimate that our net proceeds from the sale of the 6,250,000 shares of common stock we are offering at an initial public offering price of \$15 per share will be approximately \$86.0 million, or \$99.1 million if the underwriters exercise their over-allotment option in full, after deducting underwriting discounts and commissions, and after deducting our estimated offering expenses.

The principal purposes of this offering are to obtain additional capital, to create a public market for our common stock, and to enhance our ability to acquire businesses, products or technologies through the use of our common stock. We expect to use the net proceeds of this offering primarily to fund operating losses and for working capital and other general corporate purposes, including increased expenditures for research and development and sales and marketing, as well as capital expenditures, to implement our business strategies. In addition, we may use a portion of the net proceeds for the acquisition of businesses, products and technologies that are complementary to ours. However, we have no current plans, agreements or commitments and are not currently engaged in any negotiations with respect to any acquisition.

No specific amount has been allocated to any particular purpose. However, we presently intend to use approximately \$30.0 to \$40.0 million to expand our research and development efforts, approximately \$25.0 to \$35.0 million on sales and marketing activities, and approximately \$5.0 to \$10.0 million for capital expenditures. The amount we actually spend for any of the purposes above will vary significantly depending on a number of factors, including competitive and technological developments, the amount of cash used in our operations, the rate of growth, if any, of our business, and the availability of appropriate opportunities to acquire complementary businesses or technologies. Pending these uses, we intend to invest the net proceeds of this offering in investment grade, interest-bearing securities.

Our management will have considerable discretion in the application of the net proceeds of 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 lose value.

## **DIVIDEND POLICY**

We have never paid or declared cash dividends on our common stock or other securities and do not anticipate paying cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our board of directors and will be dependent upon our financial condition, results of operations, capital requirements, general business condition and any other factors that the board may deem relevant.



## CAPITALIZATION

The following table shows our capitalization as of June 30, 2000:

- on an actual basis;
- on a pro forma basis to reflect the conversion of all outstanding shares of preferred stock into 22,651,937 shares of common stock; and
- on a pro forma as adjusted basis to reflect the sale of 6,250,000 shares of common stock in this offering and the application of the estimated net proceeds of \$86.0 million, after deducting underwriting discounts and commissions and our estimated offering expenses.

The outstanding share information excludes (1) 4,188,782 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2000 with a weighted average exercise price of \$2.11 per share, (2) 347,000 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2000 with a weighted average exercise price of \$10.52 per share, and (3) 90,468 shares of common stock reserved for additional option grants under our stock option plans as of June 30, 2000 and (4) additional shares of common stock issuable upon conversion of outstanding preferred stock in respect of dividends accruing after June 30, 2000. You should read this table together with our financial statements and related notes, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Use of Proceeds” appearing elsewhere in this prospectus.

	As of June 30, 2000		
	Actual	Pro Forma	Pro Forma As Adjusted
	(in thousands, except share data)		
Long-term debt, less current portion	\$ 37	\$ 37	\$ 37
Redeemable convertible preferred stock \$.01 par value; actual — 8,977,984 shares authorized, 8,755,920 shares issued and outstanding; pro forma and pro forma as adjusted — no shares authorized, issued or outstanding	58,383	—	—
Stockholders’ equity (deficit):			
Preferred stock, \$.01 par value; actual — 1,022,016 shares authorized, no shares issued or outstanding; pro forma and pro forma as adjusted — 10,000,000 shares authorized, no shares issued or outstanding			
Common stock, \$.0025 par value; actual — 37,908,000 shares authorized, 11,688,750 shares issued and outstanding, pro forma — 37,908,000 authorized, 34,340,687 shares issued and outstanding; pro forma as adjusted — 250,000,000 shares authorized, 40,590,687 issued and outstanding	30	86	101
Additional paid-in capital	7,682	66,009	151,982
Accumulated deficit	(25,634)	(25,634)	(25,634)
Treasury stock	(200)	(200)	(200)
Deferred stock compensation	(7,212)	(7,212)	(7,212)
Accumulated comprehensive loss	(37)	(37)	(37)
Total stockholders’ equity (deficit)	(25,371)	\$ 33,012	119,000
Total capitalization	<u>\$ 33,049</u>		<u>\$119,037</u>

## DILUTION

The pro forma net tangible book value of our common stock as of June 30, 2000, was approximately \$33.0 million, or \$0.96 per share of common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total liabilities, divided by 34,340,687 shares of common stock outstanding after giving effect to the conversion of all outstanding shares of preferred stock into shares of common stock upon completion of this offering. After giving effect to our sale of 6,250,000 shares of common stock in this offering at an initial offering price of \$15 per share and after deducting the estimated underwriting discounts and commissions and our estimated offering expenses, our net tangible book value as of June 30, 2000, would have been \$119 million or \$2.93 per share. This represents an immediate increase in net tangible book value of \$1.97 per share to existing stockholders and an immediate dilution in net tangible book value of \$12.07 per share to purchasers of common stock in this offering, as illustrated in the following table:

Public offering price per share .....	\$15.00
Pro forma net tangible book value per share as of June 30, 2000 .....	\$0.96
Increase in pro forma net tangible book value per share attributable to new investors from this offering .....	<u>1.97</u>
Pro forma net tangible book value per share after this offering .....	<u>2.93</u>
Dilution per share to new investors .....	<u><u>\$12.07</u></u>

The following table sets forth on a pro forma basis, as of June 30, 2000, the number of shares of common stock purchased from us, the total consideration paid or to be paid to us, and the average price per share paid or to be paid by existing stockholders and by new investors, before deducting underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders .....	34,340,687	84.6%	\$ 56,908,800	37.8%	\$ 1.66
New investors .....	<u>6,250,000</u>	<u>15.4</u>	<u>93,750,000</u>	<u>62.2</u>	<u>15.00</u>
Total .....	<u><u>40,590,687</u></u>	<u><u>100.0%</u></u>	<u><u>\$150,658,800</u></u>	<u><u>100.0%</u></u>	<u><u>\$ 3.71</u></u>

The table above excludes (1) 4,188,782 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2000 with a weighted average exercise price of \$2.11 per share, (2) 347,000 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2000 with a weighted average exercise price of \$10.52 per share, (3) 90,468 shares of common stock reserved for additional option grants under our stock option plans as of June 30, 2000 and (4) additional shares of common stock issuable upon conversion of our outstanding preferred stock in respect of dividends accruing after June 30, 2000. To the extent outstanding options or warrants are exercised, there will be further dilution to new investors. See “Management — Stock Option Plans” on page 45 and note 9 to our financial statements.

## SELECTED FINANCIAL DATA

You should read the following selected financial data in conjunction with our financial statements and related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this prospectus. The statement of operations data for the period from September 10, 1997 (inception) through December 31, 1997 and for the years ended December 31, 1998 and 1999, and the balance sheet data at December 31, 1998 and 1999 are derived from audited financial statements included elsewhere in this prospectus. The statement of operations data for the six months ended June 30, 1999 and 2000 and the balance sheet data at June 30, 2000 are derived from unaudited financial statements included elsewhere in this prospectus. In the opinion of management, these statements have been prepared on the same basis as the audited financial statements and include all adjustments, consisting only of normal recurring adjustments, necessary for the fair statement of the results for these periods. Historical results are not necessarily indicative of results that may be expected for any future period. The balance sheet data at December 31, 1997 is derived from audited financial statements not included in this prospectus.

	Period from Inception (September 10, 1997) through December 31, 1997	Year Ended December 31,		Six Months Ended June 30,	
		1998	1999	1999	2000
	(in thousands, except per share data)				
<b>Statement of Operations Data:</b>					
Revenue .....	\$ —	\$ —	\$ 4,278	\$ 402	\$ 12,933
Cost of revenue .....	—	—	2,839	337	9,556
Gross profit .....	—	—	1,439	65	3,377
Operating expenses:					
Research and development, excluding stock compensation amortization amounts(1) ...	111	3,717	6,718	3,021	5,528
Sales and marketing, excluding stock compensation amortization amounts(1) .....	73	799	3,209	1,292	6,543
General and administrative, excluding stock compensation amortization amounts(1) ....	125	611	1,251	484	961
Amortization of stock compensation(1) .....	—	—	42	—	491
Total operating expenses.....	309	5,127	11,220	4,797	13,523
Loss from operations.....	(309)	(5,127)	(9,781)	(4,732)	(10,146)
Other income, net .....	16	16	452	92	1,056
Net loss .....	(293)	(5,111)	(9,329)	(4,640)	(9,090)
Accretion of transaction costs and accrued dividends on redeemable convertible preferred stock .....	—	(367)	(2,589)	(482)	(2,815)
Net loss applicable to common shareholders .....	\$ (293)	\$ (5,478)	\$ (11,918)	\$ (5,122)	\$ (11,905)
Basic and diluted net loss per share .....	\$ (0.05)	\$ (0.48)	\$ (1.01)	\$ (0.43)	\$ (1.03)
Shares used in computing net loss per share .....	5,742	11,389	11,789	11,958	11,601
Pro forma basic and diluted net loss per share(2) .....			\$ (0.38)		\$ (0.28)
Shares used in computing pro forma basic and diluted net loss per share(2) .....			24,251		32,462
<b>(1) Amortization of stock compensation amounts:</b>					
Research and development .....	\$ —	\$ —	\$ 5	\$ —	\$ 207
Sales and marketing .....	—	—	35	—	233
General and administrative .....	—	—	2	—	51
	\$ —	\$ —	\$ 42	\$ —	\$ 491

- (2) Pro forma net loss per share for the year ended December 31, 1999 and the six months ended June 30, 2000 is computed using the weighted average number of common shares outstanding, including the pro forma effects of the automatic conversion of our outstanding preferred stock into shares of common stock effective upon the completion of this offering as if such conversion occurred on January 1, 1999, or at date of original issuance, if later.

	As of December 31,			As of June 30,
	1997	1998	1999	2000
	(in thousands)			
<b>Balance Sheet Data:</b>				
Cash and cash equivalents . . . . .	\$ 98	\$ 1,449	\$33,012	\$ 5,464
Working capital . . . . .	23	3,916	35,069	20,082
Total assets . . . . .	368	6,451	41,695	43,952
Long-term debt, less current portion . . . . .	263	286	98	37
Redeemable convertible preferred stock . . . . .	—	10,593	55,517	58,383
Total stockholders' deficit . . . . .	(122)	(5,478)	(17,475)	(25,371)

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

*The following discussion and analysis of our financial condition and results of operations should be read together with our financial statements and related notes appearing elsewhere in this prospectus.*

### Overview

We design and market a line of broadband access platforms to telecommunications service providers. Our compact and software-configurable products enable our customers to transmit voice, data and multimedia communications traffic more rapidly and cost-effectively while preserving their investments in existing communications systems.

From our inception in September 1997 through the fourth quarter of 1998, we were a development stage company and had no revenue and our operating activities related primarily to research and development, developing and testing prototype products, building our technical support infrastructure, staffing our marketing, sales and customer service organizations, and establishing relationships with suppliers, manufacturers and potential customers. We commenced shipments of our products in the first quarter of 1999. Since our inception, we have incurred significant losses, and as of June 30, 2000, we had an accumulated deficit of \$25.6 million.

We derive our revenue from sales of our line of broadband access platforms. We generally recognize revenue from product sales upon shipment provided that a purchase order has been received or a contract has been executed, there are no significant uncertainties regarding customer acceptance, the fee is fixed and determinable and collectibility is deemed probable. If our arrangement with the customer includes obtaining customer acceptance, revenue is recognized when customer acceptance has been received.

We market and sell our products primarily through a direct sales and marketing organization and, to a lesser extent through resellers and original equipment manufacturers. We depend on a relatively small number of customers for a large percentage of our revenue in any particular quarter. For the year ended December 31, 1999, 2nd Century Communications and AccessLan accounted for 22% and 53% of our revenue. These same customers accounted for 11% and 10% of our revenue for the six months ended June 30, 2000, while Broadband Office accounted for 53% of our revenue for the six months ended June 30, 2000. While the level of sales to any specific customer is anticipated to vary from period to period, we expect that we will continue to have significant customer concentration in the foreseeable future. In addition to the customer concentration we have experienced, we have a lengthy sales cycle for our products, which may extend for six months or more, and there is often a significant delay between the time we incur expenses and the time we realize the related revenue. Moreover, we have historically derived a significant portion of our revenue from sales that occur near the end of a fiscal quarter. As a result, delays in anticipated sales are more likely to result in a deferral of the associated revenue beyond the end of a particular quarter, which could have a significant impact on our operating results for that quarter.

Despite increased revenues, we have not achieved profitability on a quarterly or an annual basis, and anticipate that we will continue to incur net losses. We expect to continue to incur significant sales and marketing, research and development and general and administrative expenses and, as a result, we will need to generate significant revenues to achieve and maintain profitability.

Our cost of revenue includes all costs associated with the production of our products, including cost of materials, manufacturing and assembly costs paid to contract manufacturers, manufacturing start-up expenses and manufacturing personnel, including related overheads. Because we outsource our manufacturing and assembly requirements, a significant portion of our manufacturing expenses consist of payments to third-party contract manufacturers. Manufacturing engineering and documentation controls are performed at our facility in Vienna, Virginia. During the fourth quarter of 1999 and the first six months of 2000 we engaged a new contract manufacturer, Benchmark Electronics, and modified our manufacturing arrangements to increase the scope of activities outsourced. Prior to that time, we retained responsibility for negotiating with various suppliers and purchasing product components, and the responsibility of our manufacturer was limited to



assembling and testing the products. Under our present turnkey arrangements, we have outsourced a number of additional tasks for which we had previously been responsible, including:

- determining the supply of components necessary to build the product;
- negotiating with, and ordering components from, suppliers; and
- purchasing and maintaining an inventory of product components.

Our gross margin for the fourth quarter of 1999 and the first six months of 2000 was negatively affected by:

- increased manufacturing costs associated with (1) early production of one of our products, the A-1240, which at such time was our most complex product, and (2) the changes in our manufacturing process described above; and
- strategic price reductions implemented to penetrate a high volume, high growth target market, which we believe will continue to account for a major portion of our revenue for the next few quarters.

We expect that continued increases in production volumes and further improvement in the design of the A-1240 will allow more efficient production of the product and will continue to improve margins in comparison to the margins we experienced in the first six months of 2000. We also expect our new manufacturing arrangements to contribute to improved margins in the near future as Benchmark becomes more familiar with our products and we begin to benefit from additional purchasing power as a result of increases in production volume. In addition, as our products gain acceptance in new target markets, we expect our margins to benefit from reduced costs due to volume and product design changes and from pricing changes.

We believe that our gross margins will continue to be affected primarily by the following factors:

- price declines as a result of competitive pressures, increased sales discounts, new product introductions by our competitors, or other factors without corresponding cost reductions;
- the mix of sales channels through which our products and services are sold, as we generally realize higher gross margin on direct sales, in particular since our expansion into international markets means we will rely more on sales to resellers and original equipment manufacturers;
- the mix of product configurations sold, as the software options available to our customers generally have a higher gross margin than hardware components; and
- the volume of manufacturing and the effect on manufacturing and component costs as we attempt to continue to manage the costs of necessary components and our arrangements with our contract manufacturers.

Research and development expenses consist primarily of salaries and related personnel costs, prototype costs and other costs related to the design, development, testing and enhancement of our products. To date, we have expensed our research and development costs as they were incurred. Several components of our research and development effort require significant expenditures, the timing of which can cause quarterly variability in our expenses. We incur significant expenses in connection with the purchase of testing equipment for our products. We believe that research and development is critical to our strategic product development objectives and intend to enhance our technology to meet the changing requirements of our customers. As a result, in the future, we expect our research and development expenses to increase in absolute dollars, but decline as a percentage of revenue.

Sales and marketing expenses consist primarily of salaries and related personnel costs, commissions, promotional, travel and other marketing expenses and recruiting expenses. We intend to increase our direct sales efforts, expand our operations internationally, hire additional sales and marketing personnel, initiate additional marketing programs and establish sales offices in new locations. As a result, in the future, we expect our sales and marketing expenses to increase in absolute dollars, but decline as a percentage of revenue.

General and administrative expenses consist primarily of salaries and related expenses for executive, finance, legal, facilities, human resources and information technology personnel, recruiting expenses and professional fees. We expect our 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.

Amortization of stock compensation represents the amortization of costs incurred in connection with option grants whose exercise prices are below the deemed fair value of our common stock at the date of grant. These costs are amortized over the vesting period which represents the period to which the employees' services related.

## **Recent Developments**

On October 3, 2000 we entered into a procurement agreement with Qwest Communications Corporation. Under that agreement, Qwest has agreed to purchase \$24 million of our products through the end of 2001. The agreement also contemplates possible additional purchases during 2002. The actual amount and timing of purchases by Qwest are uncertain and depend on future product developments and other factors, some of which are beyond our control. Qwest can terminate the agreement if we fail to deliver our products as set forth in the contract or if another person acquires 50% or more of Qwest's voting securities or substantially all of its assets.

## **Results of Operations**

### ***Six Months Ended June 30, 1999 and 2000***

*Revenue.* Our revenue increased by approximately \$12.5 million, from \$402,000 for the six months ended June 30, 1999 to \$12.9 million for the six months ended June 30, 2000. This increase was due principally to an increase in sales of our A-1000, A-2000 and A-1240 products to new customers.

*Cost of Revenue.* Cost of revenue increased by approximately \$9.2 million, from \$337,000 for the six months ended June 30, 1999 to \$9.6 million for the six months ended June 30, 2000. Our gross margin increased from 16% to 26%, primarily due to the significant increase in sales volume which exceeded the growth in manufacturing overhead costs. The margin growth resulting from the decrease in overhead costs as a percentage of revenue was partially offset by an increase in the level of discounts granted to customers to penetrate a new market segment and an increase in materials and assembly costs resulting from changes in our manufacturing arrangements.

*Research and Development Expenses.* Our research and development expenses increased by approximately \$2.5 million, or 83%, from \$3.0 million for the six months ended June 30, 1999 to \$5.5 million for the six months ended June 30, 2000, representing 63% and 41% of total operating expenses for the six months ended June 30, 1999 and 2000, respectively. The increase was due principally to an increase in the number of research and development personnel and related costs associated with the development of new products such as the A-3010, A-4000, A-5040 and the A-7010 and new features and functionality of the A-1000, A-1240 and the A-2000.

*Sales and Marketing Expenses.* Our sales and marketing expenses increased by approximately \$5.3 million, or 406%, from \$1.3 million for the six months ended June 30, 1999 to \$6.5 million for the six months ended June 30, 2000, representing 27% and 48% of total operating expenses for the six months ended June 30, 1999 and 2000, respectively. The increase was due principally to warrant issuance costs of \$3.0 million along with higher costs from the following: the hiring of additional sales and marketing personnel, sales-based commissions and marketing program costs including web development costs, trade shows, advertising and product launch activities.

Warrant issuance costs represent expenses incurred in connection with the issuance of warrants to existing or potential customers. In March 2000, in connection with the signing of a purchase agreement, we issued to Intermedia Communications, Inc. a warrant to purchase 125,000 shares of our common stock at an exercise price of \$15.00 per share. Under the original warrant agreement, the warrant vested and became

exercisable as product payments were made. In June 2000, we amended and restated the warrant agreement to provide for immediate vesting of the warrant and to permit Intermedia to exercise the warrant after seven years, or earlier depending on the timing and amount of products purchased. We accounted for the warrant as a cost of establishing a relationship with a potential customer and recorded a one-time charge of \$1.1 million in June 2000. We determined the cost associated with the warrant under the Black-Scholes option pricing model using the following assumptions: volatility of 70%; risk-free interest rate of 6.3%; dividend rate of 0%; and term of seven years.

In June 2000, in connection with the signing of a purchase agreement, we issued to Broadband Office a warrant to purchase 222,000 shares of our common stock at an exercise price of \$8.00 per share. The warrant vests immediately and is exercisable at any time over the next 36 months. We accounted for this warrant as a cost of developing a long-term business relationship with this customer. Therefore, in June 2000, we recognized a one-time charge of \$1.9 million. The amount of the charge was determined using the Black-Scholes option pricing model and the following assumptions: volatility of 70%; risk-free interest rate of 6.0%; dividend rate of 0%; and term of three years.

*General and Administrative Expenses.* Our general and administrative expenses increased by \$477,000, or 99%, from \$484,000 for the six months ended June 30, 1999 to \$961,000 for the six months ended June 30, 2000, representing 10% and 7% of total operating expenses for the six months ended June 30, 1999 and 2000, respectively. This increase was due to the hiring of additional general and administrative personnel and increased expenses necessary to support our growing operations.

*Other Income, Net.* Other income, net of expenses increased by \$964,000, or 1048%, from \$92,000 for the six months ended June 30, 1999 to \$1.1 million for the six months ended June 30, 2000. Other income, net consists of interest earned on our cash balances and marketable securities and interest expense associated with our bank debt. The increase in other income, net was primarily due to higher interest income as a result of increases in invested balances during 2000.

*Net Operating Loss Carryforwards.* As of June 30, 2000, we had approximately \$22.8 million of federal and state net operating loss carryforwards for tax reporting purposes available to offset future taxable income. See “— Net Operating Loss Carryforwards” on page 24 below.

#### ***Years Ended December 31, 1998 and 1999***

*Revenue.* We did not generate any revenue in 1998. In 1999 our revenue was \$4.3 million from sales of our A-1000, A-2000 and A-1240 products.

*Cost of Revenue.* We did not incur any cost of revenue in 1998. In 1999 our cost of revenue was \$2.8 million, and our gross margin was 34%.

*Research and Development Expenses.* Our research and development expenses increased by approximately \$3.0 million, or 81%, from \$3.7 million in 1998 to \$6.7 million in 1999, representing 72% and 60% of total operating expenses for 1998 and 1999, respectively. The increase in research and development expenses was due principally to an increase in the number of research and development personnel and related costs associated with the development of the A-1000, A-1240, A-2000, A-3010 and A-4000 products as well as enhancements to the features and functionality of those products.

*Sales and Marketing Expenses.* Our sales and marketing expenses increased by approximately \$2.4 million, or 302%, from \$799,000 in 1998 to \$3.2 million in 1999, representing 16% and 29% of total operating expenses for 1998 and 1999, respectively. The increase in sales and marketing expenses reflects the hiring of additional sales and marketing personnel, sales based commissions and marketing program costs including web development costs, trade shows, advertising and product launch activities.

*General and Administrative Expenses.* Our general and administrative expenses increased by approximately \$640,000, or 105%, from \$611,000 in 1998 to \$1.3 million in 1999, representing 12% and 11% of total operating expenses for 1998 and 1999, respectively. The increase was due to the hiring of additional general and administrative personnel and expenses necessary to support our growing operations.

*Other Income, Net.* Other income, net of expenses increased by approximately \$436,000 from \$16,000 in 1998 to \$452,000 in 1999. Other income, net consists of interest earned on our cash balances and marketable securities and interest expense associated with our bank debt. The increase in other income, net was primarily due to higher interest income as a result of increases in invested balances during 1999, partially offset by increased interest expense on bank debt.

*Net Operating Loss Carryforwards.* As of December 31, 1999, we had approximately \$14.7 million of federal and state net operating loss carryforwards for tax reporting purposes available to offset future taxable income. See “— Net Operating Loss Carryforwards” on page 24 below.

#### ***Inception Through December 31, 1997 and Year Ended December 31, 1998***

From our inception in September 1997 through the end of 1998, we recognized no revenue and incurred no cost of revenue. Our operating expenses were \$309,000 for the period from inception through December 31, 1997. Our operating activities during this period related primarily to research and development, developing and testing prototype products, building our technical support infrastructure, staffing our marketing, sales and customer service organizations, and establishing relationships with suppliers, manufacturers and potential customers. As a result, we believe that a discussion of our results of operations for the period from inception through December 31, 1997 compared to our results of operations for the year ended December 31, 1998 would not be meaningful.

#### **Quarterly Results of Operations**

The following table sets forth, for each of our last six quarters, selected data from our statement of operations and such data as a percentage of 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 financial statements and the related notes appearing elsewhere in this prospectus. The operating results for any quarter are not necessarily indicative of the results of any future period.

	Quarter Ended					
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000
	(dollars in thousands)					
<b>Statement of Operations Data:</b>						
Revenue .....	\$ 186	\$ 216	\$ 1,201	\$ 2,675	\$ 4,994	\$ 7,939
Cost of revenue .....	161	176	727	1,775	3,777	5,779
Gross profit .....	25	40	474	900	1,217	2,160
Operating expenses:						
Research and development, excluding stock compensation amortization amounts(1) .....	1,410	1,611	1,548	2,149	2,651	2,877
Sales and marketing, excluding stock compensation amortization amounts(1) .....	561	731	698	1,219	1,453	5,090
General and administrative, excluding stock compensation amortization amounts(1) .....	238	246	397	370	476	485
Amortization of stock compensation(1) .....	—	—	—	42	129	362
Total operating expenses .....	2,209	2,588	2,643	3,780	4,709	8,814
Loss from operations .....	(2,184)	(2,548)	(2,169)	(2,880)	(3,492)	(6,654)
Other income, net .....	75	17	19	341	604	452
Net loss .....	<u><u>\$ (2,109)</u></u>	<u><u>\$ (2,531)</u></u>	<u><u>\$ (2,150)</u></u>	<u><u>\$ (2,539)</u></u>	<u><u>\$ (2,888)</u></u>	<u><u>\$ (6,202)</u></u>

(footnote on next page)

	Quarter Ended					
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000
	(dollars in thousands)					
<b>As a Percentage of Revenue:</b>						
Revenue .....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenue .....	<u>86.6</u>	<u>81.5</u>	<u>60.5</u>	<u>66.4</u>	<u>75.6</u>	<u>72.8</u>
Gross profit .....	13.4	18.5	39.5	33.6	24.4	27.2
Operating expenses:						
Research and development, excluding stock compensation amortization amounts .....	758.1	745.8	128.9	80.3	53.1	36.2
Sales and marketing, excluding stock compensation amortization amounts	301.6	338.4	58.1	45.6	29.1	64.1
General and administrative, excluding stock compensation amortization amounts .....	128.0	113.9	33.1	13.8	9.5	6.1
Amortization of stock compensation ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>1.6</u>	<u>2.6</u>	<u>4.6</u>
Total operating expenses .....	<u>1,187.7</u>	<u>1,198.1</u>	<u>220.1</u>	<u>141.3</u>	<u>94.3</u>	<u>111.0</u>
Loss from operations .....	(1,174.3)	(1,179.6)	(180.6)	(107.7)	(69.9)	(83.8)
Other income, net .....	<u>40.3</u>	<u>7.9</u>	<u>1.6</u>	<u>12.7</u>	<u>12.1</u>	<u>5.7</u>
Net loss .....	<u>(1,134.0)%</u>	<u>(1,171.7)%</u>	<u>(179.0)%</u>	<u>(94.9)%</u>	<u>(57.8)%</u>	<u>(78.1)%</u>
<b>(1) Amortization of stock compensation amounts:</b>						
Research and development .....	\$ —	\$ —	\$ —	\$ 5	\$ 54	\$ 153
Sales and marketing .....	—	—	—	35	64	169
General and administrative .....	<u>—</u>	<u>—</u>	<u>—</u>	<u>2</u>	<u>11</u>	<u>40</u>
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 42</u>	<u>\$ 129</u>	<u>\$ 362</u>

Our revenue and operating results may 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. In addition, 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 capabilities to address the increased reporting and other administrative demands which will result from becoming a public company and the growth of our business. Our operating expenses are largely based on anticipated organizational growth and revenue trends and a high percentage of our expenses are, and will continue to be, fixed. As a result, any delay in generating or recognizing revenue could cause significant variations in our operating results from quarter to quarter and could result in substantial operating losses. We believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance. You should not rely on our results or growth for one quarter as any indication of our future performance. In future quarters, if our operating results are below the expectations of public market analysts and investors, the price of our common stock will probably decrease.

### Net Operating Loss Carryforwards

Our state and federal net operating loss carryforwards begin to expire in 2004 and 2012, respectively, to the extent that they are not used. 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 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. The net operating loss carryforwards could be limited in future years if there is a significant change in our ownership.



## **Liquidity and Capital Resources**

Since our inception, we have financed our operations through private sales of securities and, to a lesser extent, bank borrowings and equipment lease financing. We have raised an aggregate of \$53.1 million, net of offering expenses, through the sale of our capital stock.

Net cash used in operating activities for the six months ended June 30, 2000 was \$6.4 million. Net cash used in operating activities for the period from inception through December 31, 1997 and for the years ended December 31, 1998 and 1999 was \$126,000, \$4.2 million and \$12.7 million, respectively. Net cash used in operating activities for each period consists primarily of the net loss for the period as well as increases in accounts receivable and inventory for both the year ended December 31, 1999 and the six months ended June 30, 2000.

Net cash used in investing activities for the six months ended June 30, 2000 was \$21.7 million. Net cash provided by investing activities for the year ended December 31, 1999 was \$2.2 million. Net cash used in investing activities was \$275,000 for the period from inception through December 31, 1997 and \$4.9 million for the year ended December 31, 1998. Net cash used in investing activities for all periods consisted primarily of purchases of marketable securities as well as purchases of property and equipment. Net cash provided by investing activities consisted of proceeds from the sale of marketable securities.

Net cash provided by financing activities for the three months ended June 30, 2000 was \$604,000. Net cash provided by financing activities for the period from inception through December 31, 1997 and for the years ended December 31, 1998 and 1999 was \$499,000, \$10.5 million and \$42.0 million, respectively. For each period, the net cash provided by financing activities consists primarily of proceeds from the issuance of our capital stock.

We have no material commitments other than obligations under our credit facilities and both operating and capital leases.

As of June 30, 2000, our principal source of liquidity consisted of \$25.5 million in cash, cash equivalents and marketable securities. Our management intends to invest our cash in excess of current operating requirements in short-term, interest-bearing, investment-grade securities. The development and marketing of new and enhanced products and the expansion of our sales channels and associated support personnel will require a significant commitment of resources. Our future capital requirements will depend upon a number of factors, including the rate of growth of our sales, the timing and level of research and development activities and sales and marketing campaigns. As of June 30, 2000, we did not have any material commitments for capital expenditures. However, we expect to incur capital expenditures as we expand our operations in the near future. Although we do not have any current plans or commitments to do so, from time to time, we may also consider the acquisition of, or evaluate investments in, products and businesses complementary to our business. Any acquisition or investment may require additional capital.

Although it is difficult for us to predict future liquidity requirements with certainty, we believe that the net proceeds from this offering, together with our current cash, cash equivalents and marketable securities will be sufficient to meet our anticipated cash needs for working capital and capital expenditures for at least the next 12 months. We may require additional capital to fund our business if we seek to acquire complementary companies, products or technologies, or for other uses not presently planned. In addition, if the market for broadband access equipment develops at a slower pace than anticipated or if we fail to establish significant market share and achieve a meaningful level of revenue, we may continue to incur significant operating losses and utilize significant amounts of capital. As a result, we could be required to raise substantial additional capital. If cash from other available sources is insufficient to satisfy our liquidity requirements, we may seek to sell additional equity or debt securities. If additional funds are raised through the issuance of debt securities, these securities could have rights, preferences and privileges senior to holders of common stock, and the terms of this debt could impose restrictions on our operations and cause us to incur significant interest expense. The sale of additional equity or convertible debt securities could result in additional dilution to our stockholders. Additional capital may not be available to us at all, or if available, may be available only on unfavorable terms. Any inability to raise additional capital when we require it would materially adversely affect our business, results of operations and financial condition.

## **Quantitative and Qualitative Disclosures About Market Risk**

As of June 30, 2000, we had investments in marketable securities of \$20.1 million. All of these securities consisted of highly liquid investments. Of the total, \$11.2 million was for marketable securities with remaining maturities at the date of purchase of less than 365 days, the balance of the securities or \$8.9 million had remaining maturities at the date of purchase of 365 days or greater. These investments are subject to interest rate risk and will decrease in value if market interest rates increase. A hypothetical increase or decrease in market interest rates by 10% from the June 30, 2000 rates would not cause a material change in the fair value of these short-term investments. We have the ability to hold these investments until maturity, and therefore we do not expect the value of these investments to be affected to any significant degree by the effect of a sudden change in market interest rates. Declines in interest rates over time will, however, reduce our interest income.

As of June 30, 2000, we did not own any equity investments. Therefore, we did not have any material equity price risk.

Substantially all of our revenue is currently realized in U.S. dollars. In addition, we do not maintain significant asset or cash account balances in currencies other than the United States dollar. Therefore, we do not believe that we currently have any significant direct foreign currency exchange rate risk. In the future, a portion of our international sales may be denominated in currencies other than U.S. dollars, which would then expose us to gains and losses based upon exchange rate fluctuations.

## **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 that entities capitalize costs related to internal-use software. We were required to implement SOP No. 98-1 for the year ended December 31, 1999. The adoption of SOP No. 98-1 did not have a material impact on our financial position, results of operations or cash flows.

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, SOP No. 98-5 requires that all start-up costs that were capitalized in the past must be written off. We were required to implement SOP 98-5 for the year ended December 31, 1999. The adoption of SOP No. 98-5 did not have a material impact on our financial position, results of operations or cash flows.

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards, or SFAS, No. 133, Accounting for Derivative Instruments and Hedging Activities. SFAS No. 133 establishes methods of accounting for derivative financial instruments and hedging activities related to those instruments as well as other hedging activities. Because we currently hold no derivative instruments and do not engage in hedging activities, we expect that the adoption of SFAS No. 133 will not have a material impact on our financial position, results of operations or cash flows. We will be required to implement SFAS No. 133 for the year ending December 31, 2001.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, or SAB 101. This summarizes certain areas of the Staff's views in applying generally accepted accounting principles to revenue recognition in financial statements. We believe that our current revenue recognition principles comply with SAB 101.

In March 2000, the Financial Accounting Standards Board issued FASB Interpretation No. 44, "Accounting for Certain Transactions Involving Stock Compensation, an Interpretation of APB Opinion No. 25." This interpretation is generally effective for applicable transactions beginning July 1, 2000. We do not expect this interpretation to have a material impact on our financial statements.

## BUSINESS

### Overview

Advanced Switching Communications, Inc. designs and markets a line of broadband access platforms to telecommunications service providers. Our compact and software-configurable products enable our customers to transmit voice, data and multimedia communications traffic more rapidly and cost-effectively while preserving their investments in existing communications systems. Our products are deployed at central offices, points of presence or multi-tenant office buildings that comprise the entry points to a service provider's access network. By extending the benefits of packet technology beyond the network core, our products reduce transmission and operating costs, increase the efficiency of core network equipment, provide access to fiber optic core networks and allow our customers to develop networks for broadband services. We market our products to telecommunications service providers worldwide, focusing on established as well as emerging carriers, multi-tenant unit service providers and digital subscriber line service providers.

### Industry Background

#### *Internet and Deregulation Driving Data Traffic and CLEC Growth*

Growth in broadband applications, such as Internet access, electronic commerce, business usage of web-based communications, remote access for teleworkers, application hosting and other services has generated enormous growth in data traffic. This explosion of data traffic, coupled with existing demand for voice traffic, is placing significant strains on the existing network infrastructure. Meanwhile, worldwide deregulation of the telecommunications industry has resulted in the emergence of new service providers who are building advanced packet-based networks, which transport voice and data in small bundles, or "packets." These networks use available network bandwidth more efficiently than traditional circuit-switched telephone networks, which were designed for voice traffic and built long before the advent of the Internet. Packet-based networks offer a highly flexible, cost-effective and efficient means to provide communications services, including data, voice and multimedia, and are undergoing rapid expansion. In the United States, for example, the Association for Local Telecommunications Services estimates in its year 2000 annual report that more than 300 new competitive local exchange carriers, or CLECs, have emerged since the passage of the Telecommunications Act of 1996 and are investing, on average, over \$1 billion per month in the aggregate on their networks. In general, these competitive service providers seek to capture opportunities in markets that larger incumbent service providers have generally ignored, including small to medium sized-businesses and lower population density markets. In response to deregulation and increased competition, incumbent service providers worldwide are seeking to upgrade their existing networks to enable them to provide broadband services that are comparable to the offerings of competitive service providers. As a result, both incumbent and competitive service providers are aggressively pursuing equipment solutions that allow them to offer broadband services while capitalizing on their investment in existing network infrastructure.

#### *Limitations of Existing Local Access Networks*

Telecommunications service providers typically situate high-speed packet transmission equipment at the core or backbone of their networks, but rely on voice-oriented technology for their access networks. Local access networks are comprised of a system of central offices, facilities that serve as staging areas for the delivery of telecom services to the end user. Commonly known as the "last mile," access networks generally still use the copper infrastructure originally built to transmit voice signals using technology known as analog. As a result of the technological constraints of voice-oriented technology, existing access network architectures consist of separate voice and data networks that operate with different transmission protocols. These multiple or overlay networks are unable to efficiently satisfy the demand for enhanced services. While the bandwidth capabilities of local area networks (at customer premises) and fiber-based core networks have dramatically

increased, the access networks that link the two have not kept pace. Existing access equipment alternatives do not adequately meet the needs of service providers because:

- Traditional access equipment does not support broadband services.
- Existing packet-based solutions, known as edge switching equipment, that do support broadband services are generally large, inflexible and costly adaptations of core network products that are difficult to install, operate and upgrade.

We believe that the size of the market for the type of access equipment described above is best characterized by the edge aggregation market estimates of RHK, a market research and consulting firm. According to RHK, the market for edge aggregation is forecasted to grow from \$3.7 billion in 1999 to between \$14.1 billion and \$16.3 billion in 2003, a compound annual growth rate of between 39% and 44%.

### ***Access Equipment Requirements for Broadband Service Providers***

Deregulation and increased competition are forcing service providers to invest in equipment that accelerates the delivery of broadband services to customers. Service providers must reduce time-to-market, offer significant cost advantages and provide differentiated and expanded service offerings in order to win customers and gain market share. As a result, today's service providers require multi-service access equipment with the following characteristics:

- *Scalability.* With demand for broadband services growing rapidly across all market segments, service providers need equipment suitable for all of their markets. In order for service providers to grow their customer base and increase the breadth and number of available service offerings, this equipment must scale in a linear fashion regardless of customer density.
- *Multi-Service Support.* Today's networks carry multiple transmission types or protocols, including frame relay, asynchronous transfer mode, or ATM, Internet protocol, and time division multiplexing, or TDM. Global multi-billion dollar service markets have been built around each of these protocols. Service providers require a solution that adapts these multiple access protocols to a single packet-based network. A unified solution can dramatically streamline provisioning, create structural cost advantages and simplify network architectures.
- *Cost Effectiveness.* Service providers seek equipment with low initial cost that will allow them to build their networks rapidly and target customers and markets that may otherwise go unserved. In addition, widely deployed equipment must allow service providers to maintain low operating costs by minimizing the time and expense involved in provisioning and upgrading services.
- *Space and Other Physical Requirements.* The demand for broadband services is causing service providers to extend their networks closer to their customers in larger numbers of central offices, points of presence and new locations, such as basements of multi-tenant units. Space in these locations is limited and expensive and may have insufficient power and cooling capacity necessary to operate traditional networking equipment. Equipment deployed at these sites must be compact and must have minimal power and cooling requirements. However, this equipment must also comply with the rigorous industry standards established for central office equipment.
- *Interoperability with Existing Systems.* Service providers require equipment that operates in conjunction with the exacting standards of today's carrier network systems and preserves the value of their existing networks. In addition, they seek a network architecture that is not easily disrupted and that will maximize the performance of their core network equipment, such as switches and routers.
- *Rapid Provisioning and Response Times.* Competitors in today's telecommunications market are racing to expand their networks and increase their market share. Service providers require a solution that enables them to rapidly offer reliable integrated services on a wide scale. Once deployed, their equipment must support quick response times to end-user requests. Moreover, service providers need equipment that can be configured from a remote terminal so that they can avoid sending a technician to physically modify the equipment to add or change a customer's service.

## The ASC Solution

Our product line is focused exclusively on providing solutions at the local access network level and enabling our customers to extend the high-speed benefits of packet technology from their typically optical core networks into local access applications. We have designed our product line to meet the protocol flexibility, price-point, scalability and interoperability requirements of broadband service providers worldwide. Our innovative products are easily integrated into the access network architecture and offer the following benefits and features:

- *Enhanced Revenue Opportunities.* Our product design and multi-service capabilities help service providers generate additional revenue by penetrating new markets and expanding the types of services and variety of service packages they can offer and allowing them to provision services more rapidly. The relatively low initial investment required to deploy our equipment enables service providers to increase revenue growth by rapidly building and expanding their network.
- *Highly Scalable Product Architecture.* Our products are designed to proportionally meet our customers' network requirements. In small markets, a customer can deploy services with a single card in a stackable platform and add platforms as demand grows. In large markets, customers can deploy our multiple card system using the same individual cards from the stackable platforms. Our scalable product architecture allows service providers to target small and medium sized markets that are prohibitively expensive to service using other, less scalable technologies.
- *Multi-Service Capabilities.* Our products' ports, which transmit and receive data to and from physical access lines, are individually software configurable to support various transmission protocols, including frame relay, ATM, and TDM (for voice). Our products also support enhancements to frame relay and ATM, known as multi-link frame relay and inverse multi-plexing over ATM, respectively, that allow service providers to use existing network capacity more efficiently and provide new broadband services. By converting these protocols into a single network protocol, we can significantly simplify a service provider's core network. In addition, new protocols can be added through software instead of hardware. Our software-configurable ports eliminate the need for service providers to predetermine the number of ports dedicated to each specific protocol or service. Service providers that use our products can remotely configure ports for new services as end users request them. In addition, a service provider can change a customer's service using software, with minimal service disruption and without dispatching personnel to physically change a customer's connection.
- *Reduced Operating Costs.* Our products convert different end-user services to a single format or protocol for transmission to the core network, eliminating the need to deploy multiple core networks, one for each service offered. Our products also aggregate the local access lines that carry these services into fewer high-speed optical or electrical connections to the core network, allowing core network equipment to operate more efficiently. This service conversion and access line aggregation reduces the costs of building and operating a service provider network. Additionally, converging access services into a single network protocol eliminates the complexity and expense of deploying multiple overlay networks for each protocol or service offered.
- *Interoperability with Existing Systems.* Since our products operate with all leading core network components, service providers can preserve and leverage the value of their existing investments. Our products utilize industry standard protocols and have built-in software flexibility to add new protocols as they are adopted and standardized in the marketplace.
- *Space and Physical Design Advantages.* The compact design and high port density of our equipment means that it occupies minimal space at central offices, multi-tenant office buildings, or other points of presence. In addition, the lower power requirements and the low heat output of our products allow service providers to deploy services to locations previously excluded from the network because of the physical limitations of the space. Finally, our products comply with Network Equipment Building System, or NEBS, level 3 standards, the most stringent network facility standard set forth by Bellcore



for central office equipment. This means that they can be deployed in virtually any central office in a service provider's network.

## Strategy

Our objective is to become a leading provider of broadband access platforms that enable service providers worldwide to provide integrated voice, data and multimedia broadband services. To achieve our objective, we enable service providers to continue building high-speed networks that extend packet technology outward from the network core to the access network and thereby eliminate the need for and added cost of operating multiple single-protocol networks. Key elements of our strategy include:

*Broaden Customer Base Domestically and Internationally.* We have won strategic customer accounts in three market segments: next-generation carriers, multi-tenant unit service providers and digital subscriber line service providers. We plan to leverage this success to generate increased sales by focusing global sales efforts on these key segments, publicizing early wins and developing marketing materials and campaigns targeted at these segments. For example, many next-generation carriers are positioning themselves to offer integrated voice-data-multimedia services over a single network infrastructure, while some are expanding and extending their packet-based networks to satisfy customers' bandwidth and networking demands. We intend to capitalize on these developments and broaden our focus by targeting groups within incumbent local exchange carriers (ILECs), interexchange carriers, post telephone and telegraph organizations abroad and other types of service providers building packet-based networks.

*Leverage Technology Leadership from Access into Core.* We believe we have established a technology leadership position in the market for broadband access platforms. Our broadband access platforms are designed for deployment in hundreds or thousands of points of presence, central offices or multi-tenant office buildings within a service provider's network. Once our products are installed in a service provider's network, we can simplify its network architecture and operations. To address evolving network needs, we will continue to extend the capabilities of our product by leveraging our unique software-upgradeable design to support new protocols, greater numbers of end-users and higher speed optical connections, as well as enhanced switching capabilities. Moreover, as we add new features and products, our solutions will gradually assume more functionality previously relegated to core platforms, extending our platforms into the core of service provider networks.

*Provide Customers with a Smooth Migration Path to a New Generation of Networks.* Our product line is designed to support the current infrastructures and services in the market with a software-based architecture that supports new protocols and services without major hardware changes. Today, the predominant network protocol used to provide integrated multi-protocol services is ATM. We plan to leverage our flexible architecture to allow our customers to rapidly capture market share using ATM as a network protocol and cost-effectively evolve their networks to support the Internet protocol and optical-based services of the future.

*Expand Our Global Sales Efforts and Our Customer Service and Support Capabilities.* We primarily sell our products through our direct sales force. We plan to expand our direct sales force domestically and internationally, including expansion in Europe, Asia and Latin America which represented an aggregate of 10% of our revenue in 1999. To support our direct sales efforts, we will continue to develop relationships with multiple distribution partners, systems integrators, resellers and original equipment manufacturers to help build acceptance of our products. We plan to complement our product line by expanding our professional service and support organization designed to ensure effective product implementations and high levels of customer satisfaction.

*Continue to Outsource Product Manufacturing.* Our manufacturing strategy is based on the use of one or more contract manufacturers for the assembling, testing, packaging, warehousing and shipping of our products. By continuing to outsource the manufacturing of our products, we can continue to focus our resources on product design and development, and executing sales and marketing initiatives. In addition, outsourcing allows us to achieve economies of scale in operating and purchasing while reducing the significant capital investments required for manufacturing equipment and inventory management. Currently, we use one primary contract manufacturer, Benchmark Electronics.



## Products

Our product family of broadband access platforms includes the A-1000, A-2000, A-1240, A-3010 and A-4000. Our unique, scalable architecture provides cost effective access solutions at a variety of port densities, large or small. Each of our compact, stackable platforms, the A-1000, the A-2000, the A-1240, and the A-3010 operates as a complete stand-alone system or as a card, or component, in the A-4000, which contains 18 slots to house these individual cards. The following table summarizes our product line. All of the products set forth below are currently commercially available, except the following, which are expected to be available in 2001:

- the A-4500, a multi-slot system with high-speed optical switching capabilities;
- the A-5040, a card with four high-speed 155 Mbps (OC-3c) optical connections; and
- the A-7010, a card with one high-speed 622 Mbps (OC-12c) optical connection.

### Single-Slot Products

Product Name	Protocols Supported	Available Ports	Applications	First Shipment
A-1000	ATM Frame Relay Inverse Multiplexing over ATM (IMA) Multilink frame relay (MFR) ATM-frame relay conversion	<ul style="list-style-type: none"> <li>• 12 T1/E1</li> <li>• 1 T3/E3</li> </ul>	Low customer density points of presence.	1Q 1999
A-2000	ATM Frame Relay ATM-frame relay conversion	<ul style="list-style-type: none"> <li>• 4 T3/E3</li> <li>• 1 OC-3c</li> </ul>	Low customer density points of presence or as aggregation platform behind multiple A-1000s, A-1240s, and A-3010s or other equipment with T3/E3 network connections.	1Q 1999
A-1240	ATM Frame Relay IMA MFR ATM-frame relay conversion TDM (via ATM Circuit Emulation) VLAN (over Ethernet)	<ul style="list-style-type: none"> <li>• 24 T1/E1</li> <li>• 1 T3/E3</li> <li>• 1 10/100 BaseT Ethernet</li> </ul>	Low to medium customer density points of presence. In-building points of presence.	3Q 1999
A-3010	ATM Frame Relay IMA MFR ATM-frame relay conversion TDM (via ATM Circuit Emulation) VLAN (over Ethernet)	<ul style="list-style-type: none"> <li>• 28 T1/E1 (over channelized T3/E3)</li> <li>• 1 T3/E3 (unchann.)</li> <li>• 1 10/100 BaseT Ethernet</li> </ul>	Low to medium customer density points of presence.	3Q 2000

### Multi-Slot Products

Product Name	Protocols Supported	Available Ports	Applications	First Shipment
A-4000	ATM Frame Relay IMA MFR ATM-frame relay conversion TDM (via ATM Circuit Emulation)	<ul style="list-style-type: none"> <li>• up to 392 T1/E1</li> <li>• 56 T3/E3</li> <li>• 4 OC-3c/ STM-1 or 16 T3/E3 (scales to 16 OC-3c/ STM-1 with A-5040 or 4 OC-12c/ STM-4 with A-7010 in 2001)</li> </ul>	Aggregation at high customer density points of presence and at sites used to aggregate traffic from multiple smaller points of presence or buildings.	2Q 2000
A-4500	IP/MPLS ATM Frame Relay IMA MFR ATM-frame relay conversion TDM (via ATM Circuit Emulation) Scales from speeds of DS-0 or 64 Kbps to OC-48 and OC-192 or 9.95 Gbps.	<ul style="list-style-type: none"> <li>• 64 OC-3c or 16 OC-12c alone initially</li> <li>• Planned to scale to higher optical speeds and densities</li> </ul>	Switching at high customer density points of presence and at network hub sites.	Estimated 2001

## **Technology and Product Architecture**

Our product architecture is designed to give service providers a platform to offer broadband services today while providing a smooth migration path to the new generation of networks.

### ***System-on-a-Card Design***

The fundamental building block of our broadband access systems is our system-on-a-card design. We have engineered compact entry-level systems that contain all of the components necessary for a service provider to deliver broadband services. With traditional systems, customers must make a considerable upfront investment in costly equipment before installing the components that connect to end-users. Our customers can stack our individual single-slot products as the number of their end-users grows, and eventually move to our multi-slot products with considerably lower upfront costs than with traditional equipment. In addition, the cards used in our single-slot products may be removed and inserted into our A-4000 multi-slot product, allowing our customers to preserve their initial investments.

### ***Protocol Independent Ports***

In traditional system architectures, the support of each service or protocol is dependent on a separate hardware component. Many products were designed to support a single type of service. Other products have incorporated multiple services in a single system through separate physical components that support different services. Our universal ports create a new paradigm by eliminating the need for hardware dedicated to specific services. Through software, our universal ports can be remotely configured for different services. Because they are protocol-independent and software-configurable, our ports can greatly simplify network planning and significantly reduce capital expenditures on hardware, as service providers no longer need to install separate components for different services.

### ***Multi-Service Switch Fabric***

We have designed a custom switch fabric explicitly for the needs of access networks. Our fabric employs a proprietary network processor. Our network processor is unique in that it natively supports both cell-based, or fixed length, and frame-based, or variable length, packet-oriented protocols without requiring conversion between the protocols. Since cell-based protocols are able to prioritize traffic and ensure that time sensitive voice traffic is not delayed, the predominant approach to providing integrated voice-data services in today's access networks centers around cell-based protocols, such as ATM. Because of the pervasiveness of the Internet and the growth in related traffic, an eventual migration to an Internet protocol or variable length packet based protocol is possible. Our products' switch fabric anticipates a migration to a native Internet protocol approach. With native support of both cell- and frame-based packet protocols, our switch fabric adapts to the needs of today's access networks, while providing flexibility to evolve without major hardware modifications.

### ***Common Software Architecture***

Our software architecture is scalable and identical both for the single-slot and multi-slot systems. One of our key-enabling features is a high-performance and efficient software system that scales from a stackable to a multi-slot product. This system supports distributed call control processing, bandwidth resource allocation and network administration and management while providing a common view of management information regardless of the size of the system. Another key feature we have built into this design is a software system that determines where specific functions occur either locally or remotely across a system. Both of these software features preserve a consistent "look and feel" to the user. This facilitates network management and service provisioning and allows customers to preserve their investment in network management systems and our existing hardware as they grow their network into higher densities and new services.

### ***MultiStream Technology***

Most local access networks are based on connections that come in two sizes: T1/E1 or T3/E3. There is a large difference in capacity and cost between the T1/E1, which represents 1.5/2.0 Mbps, and the T3/E3, which represents 45/34 Mbps. Moreover, service providers typically take longer to provision or deliver T3/E3

connections. In many smaller markets these larger connections may not be readily available. Our MultiStream technology bridges the capacity and cost gaps between T1/E1 and T3/E3. This technology bundles multiple physical T1/E1s onto one logical connection that operates like a single large “pipe.” The total capacity of a bundle equals the sum of the combined links. However, if one of the T1/E1 connections should fail, the software adjusts the capacity downward and continues using the remaining active T1/E1 lines, providing a built-in source of network redundancy.

MultiStream employs bundling technology for both ATM traffic, which is called inverse multiplexing over ATM, or IMA, and frame relay traffic, which is called multi-link frame relay, or MFR. Because all of our product ports are configured with software, we believe we are the only equipment provider who can support both IMA bundles and MFR bundles simultaneously on the same card. In addition, the software configurability of our broadband access platforms allows the service provider to add T1/E1 connections and increase the connection size without interrupting service.

Service providers can apply our MultiStream technology in two ways:

- *End-user applications and services.* Service providers can bundle connections from the central office or point of presence to the end-user to offer a menu of access speeds between a T1/E1 and a T3/E3.
- *Internal service provider network connections.* MultiStream technology can also be applied to connections from the central office to the network or between points of presence, allowing the service provider to (1) save money and avoid wasted capacity with a bundled connection instead of a T3/E3 and (2) speed time to market by utilizing more readily available T1/E1 connections when a T3/E3 connection is unavailable or will not be available for several months.

## **Customers**

We market to telecommunications and data communications service providers worldwide. Customers that have purchased or committed to purchase in excess of \$100,000 of our products through September 30, 2000: AccessLan, BroadBand Office, Broadview Networks, Dishnet DSL, Intermedia Communications, Inc., mPower Communications, Qwest Communications, 2nd Century Communications, Urban Media and UUNet. We focus on the following key service provider market segments:

### ***Next-Generation Carriers***

Emerging carriers, which we refer to as next-generation carriers, include several different classifications of service providers including CLECs, Internet service providers and other more traditional service providers. Next generation carriers, however, are unified by their fundamental reliance on packet network architectures to provide advanced broadband services. Next-generation carriers are moving away from traditional voice-oriented architectures and extending packet platforms into the far reaches of their networks. Many are driving to offer integrated voice-data-multimedia services over a single network infrastructure, while some are expanding and extending their data networks to satisfy their customers’ bandwidth and networking demands. Our broadband access platforms can be used by next-generation carriers to extend their networks to new locations, offer additional and differentiated services and migrate to an advanced architecture. Our customers that are next-generation carriers include: 2nd Century Communications, Intermedia Communications Inc., Qwest Communications and UUNet.

### ***Multi-Tenant Unit Service Providers***

Multi-tenant unit service providers represent a relatively new class of service provider that locates a point of presence or “mini-central office” in the basement or wiring closet of a shared office building. By creating this service aggregation point within a building, the multi-tenant unit service provider is able to bypass the ILEC network, thereby eliminating the need to rent space and place equipment at the ILEC’s central office. As a result, the multi-tenant unit service provider can deliver differentiated services to building tenants with significant cost advantages compared to the ILEC and improve customer responsiveness. While it may take several weeks for an end user to obtain service from an ILEC’s central office, once a multi-tenant unit service provider has a point-of-presence in a building, an end-user in that building can generally receive service in a matter of days. Many multi-tenant unit service providers intend to use the in-building approach as leverage to

launch nationwide service delivery networks and for delivering business application level services to end-users. Our products can be used by multi-tenant unit service providers for in-building service delivery as well as at metropolitan aggregation sites. We market to the class of multi-tenant unit service providers that sell to the business market. Our customers that are multi-tenant unit service providers include: BroadBand Office and Urban Media.

### ***Digital Subscriber Line Service Providers***

There has been significant investment over the past several years by service providers offering broadband services using digital subscriber line technology, a technology that provides high-speed access services over standard copper telephone lines. These service providers place equipment, known as digital subscriber line access multiplexers, or DSLAMs, at ILEC central offices and connect residential or corporate customer access lines to these devices to deliver broadband access. We market to digital subscriber line service providers that are facilities-based, meaning that they purchase and install their own DSLAMs and network infrastructure, instead of reselling services from another service provider. Our products can help carry the user's traffic from the DSLAM or multiple DSLAMs into the service provider's core more cost-effectively. Our customers that are digital subscriber line service providers include: Broadview Networks, Dishnet DSL, mPower Communications and Network Plus (through an original equipment manufacturing arrangement with AccessLan).

The following examples illustrate how organizations in our target markets are using our products to deploy their broadband service offerings:

### ***CLEC Targets New Revenue Opportunities through MultiStream Technology***

One of the country's largest CLECs wanted to offer customers a menu of frame relay and ATM services with access speeds between 1.5 Mbps (T1) and 45 Mbps (T3) to increase market share and revenue. Traditionally, when end-user customers reach capacity on a T1 connection, their options are limited: they can either purchase a T3 line, which would be expensive and severely underutilized; or purchase costly proprietary equipment. This CLEC chose our products as a way to bridge the T1-T3 gap and be first to market in providing incremental frame relay and ATM bandwidth options between 1.5 Mbps and 45 Mbps. Currently, the CLEC is in the process of deploying our stand-alone products such as the A-1240 in lower density sites and plans to deploy the A-4000 in higher density sites.

### ***Next-Generation CLEC Offers Integrated Services at Significant Cost Advantage over Incumbent Carrier***

A next-generation CLEC wanted to build a local access network that did not rely on existing infrastructure or equipment. It estimated that the cost of building a packet-based network that supports both voice and data would be approximately 60 percent less than a voice-oriented network. Traditionally, network service providers have offered voice and data services over a voice-oriented or TDM infrastructure. With TDM, voice and data services are delivered to the customer through separate overlay networks. As a result, bandwidth and equipment ports throughout the network must remain dedicated to specific customer applications even when those applications are inactive. Our customer sought to eliminate the need for separate overlay networks in order to obtain the cost advantages and offer the enhanced services it needed to compete with incumbents.

Our customer chose our products to play an integral role in its infrastructure and deployed our stand-alone broadband access platforms in central offices to aggregate traffic from multiple customers and create a single network connection into the core network. Our products permit our customer's network capacity and ports on core switches to be shared among different applications and customers. In addition, the compact size of our broadband access platforms reduces their space requirements. With a packet-oriented network in place, our customer can offer integrated voice and data services over existing connections without having to purchase traditional TDM and voice switching equipment. As a result, our customer can compete aggressively against incumbents and offer unique services.

### ***Multi-Tenant Unit Service Provider Attacks Small-Medium Business Market with New Approach***

A multi-tenant unit service provider needed to rapidly deploy services to large numbers of shared office buildings nationwide. In order to capture customers, our customer had to differentiate its service offerings from those of incumbent providers. Our customer faced two main connectivity problems: how to distribute services within a building and how to connect that building to its nationwide network. The uneven mix of facilities available to connect buildings to the network exacerbated these problems.

Our customer selected the A-1240 broadband access platform to establish a point of presence in large numbers of office buildings, deliver high-speed Internet access and other services within the buildings, integrate end-user voice traffic and connect all traffic to its network. It chose our broadband access platform because it allows the service provider to offer end-users a range of Internet bandwidth options up to 100 Mbps and to reconfigure an end-user's access speed remotely through software. Additionally, end users' existing voice equipment can connect directly to the A-1240, providing a mechanism for the multi-tenant unit service provider to integrate voice traffic with little disruption to the customer's existing equipment. Our A-1240's flexibility enables our customer to use multiple methods when connecting buildings to its network, and our MultiStream technology allows it to deploy services rapidly by bundling T1 connections when a T3 connection is not available. Our customer also installed our equipment at its metropolitan hub sites to aggregate traffic from multiple buildings for a faster, more efficient access network architecture.

### **Sales and Marketing**

We sell our broadband access platforms primarily through a direct sales force both domestically and internationally. We also drive awareness and customer acceptance of our products through strategic relationships with original equipment manufacturers, distributors and resellers. Because of our focus on the access network, we have established co-marketing relationships with a wide range of equipment providers operating either inside service provider networks closer to the core or at the end-user location. We seek to partner widely to deliver a complete, end-to-end solution to service providers. To that end, we have a variety of co-marketing arrangements designed to extend our reach into our service provider segments. As of September 30, 2000, our sales and marketing organization consisted of 46 persons in 9 locations.

#### ***Sales***

*Direct Sales.* Our direct sales force is regionally dispersed throughout the United States, in Canada and the United Kingdom, and we plan to establish an office in Hong Kong to cover the Asian market. Our sales force is comprised of regional sales directors, managers and system engineers who manage customer relationships and sell our products into different levels of the service provider organization.

*Distribution Channel Sales.* We intend to develop relationships with distribution partners and resellers to extend our market reach to additional service providers, including regional service providers and independent telephone companies. These relationships will also provide an additional product fulfillment channel. We currently have agreements with Consulintel, Netways, Solunet, Technica Corporation, Walker Associates and Westcon.

*Original Equipment Manufacturer Sales.* We intend to employ relationships with a limited number of original equipment manufacturers to expand our market reach, especially in segments or application areas where we are part of a complete solution. We currently have agreements with AccessLan and Alidian.

*International Sales.* We are currently building our international sales organization, primarily in Europe, Asia and Latin America. In addition, we seek to develop strategic relationships with key system integrators and resellers to build acceptance for our products. We anticipate that we will rely on these types of relationships to a greater degree internationally than domestically.

#### ***Marketing***

We have a variety of marketing programs and initiatives to support the sale and distribution of our products. We target these activities to prospective and existing customers, distribution partners and resellers, and the trade press and analysts. Marketing activities include preparation of sales tools, business cases, competitive analyses and other marketing collateral, sales training, publication of customer deployments, new



product information and educational articles in industry journals, maintenance of our World Wide Web site as well as an Intranet site, participation in technical conferences, advertising in industry journals and other venues, and direct marketing to prospective customers. We also participate in leading industry tradeshows domestically and internationally.

### **Customer Service**

Providing a high level of service and support is critical to our objective of establishing and developing long-term customer relationships. Our expanding customer service and support efforts are divided into three distinct functions that ensure effective implementation of our products. First, product quality assurance seeks to ensure that the highest quality product is available for sale to customers. Second, project management provides the technical leadership, support and training to help existing or potential customers understand new products in order to bring the product to revenue-generating capability as quickly as possible. Finally, network support provides our customers with ongoing support once the equipment has been sold and installed. As our product base continues to expand, we intend to offer an enhanced level of customer support on a post-product sale basis. We expect to charge our customers separately when we do begin to offer this higher level of service. Currently, our customer service and support organization is comprised of headquarters-based software, project and application engineers and field-based network engineers. Services are delivered through web-based support, by phone or in person.

### **Research and Development**

We have assembled a team of highly experienced networking professionals recruited from industry-leading communications companies. Our product development staff has successfully developed hardware and software products and has expertise in the areas of voice, frame relay, ATM, IP, switching/routing, network management, and provisioning for carrier-class networks. The team includes hardware and software engineers, many with advanced degrees and proven product successes for wide area switching and routing systems. As of September 30, 2000, we employed 79 people in our research and development staff, with plans to continue expanding all functional areas of our research and development organization. Research and development expenses totaled \$3.7 million in 1998, \$6.7 million in 1999 and \$5.5 million in the first six months of 2000.

### **Manufacturing**

Our manufacturing operations consist of prototype development, materials planning and procurement, final assembly, testing, systems integration, order fulfillment and quality control. 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. We maintain relationships with strategic technology suppliers in tandem with Benchmark and utilize distribution channels to help manage supply.

We currently subcontract the manufacturing and testing of substantially all of our products through purchase orders with Benchmark Electronics. We have not, however, entered into any long-term agreements with Benchmark Electronics. Our reliance on Benchmark Electronics as our principal manufacturer exposes us to a number of risks, including reduced control over manufacturing capacity, product completion and delivery times, product quality and manufacturing costs. If Benchmark Electronics is unable or unwilling to manufacture a sufficient quantity of products for us, on the time schedules and with the quality that we demand, we may not be able to fulfill customer orders on a timely basis and may be forced to engage additional or replacement manufacturers. We have identified potential alternative manufacturers if Benchmark terminates its relationship with us. However, qualifying a new contract manufacturer and commencing a volume production is expensive and time consuming. If we are required or choose to change contract manufacturers, our revenue may decline and our customer relationships may be damaged.



## **Competition**

Our product line is focused on providing the next-generation access solution for the access network. Many vendors have product lines that compete in the broadband access equipment market. We believe that the principal competitive factors for next-generation access equipment are:

- scalability to high and low customer density locations with a cost-effective solution;
- multi-service capability with service interworking;
- inherent support of voice, data, and multimedia traffic;
- ability to support new protocols and services with software upgrades;
- product innovation and speed to market;
- ability to react quickly to customer demands and requirements; and
- price.

Many of our current and potential competitors, including Alcatel, Cisco Systems, Lucent Technologies, Marconi (Fore) and Nortel Networks, are large public companies that have longer operating histories and significantly greater financial, technical, marketing and other resources than we do. As a result, these competitors are able to devote greater resources to the development, promotion, sale and support of their products. In addition, competitors with large market capitalizations or cash reserves are much better positioned than we are to acquire other companies, including our competitors, and thereby acquire new technologies or products that may displace our product lines.

Many of our competitors have significantly more established customer support and professional services organizations than we do. In addition, many of our competitors have more extensive customer bases and broader customer relationships than we do, including relationships with many of our current and potential customers. Moreover, these competitors often have broader product offerings than we do. These companies can leverage their customer relationships and broader product offerings and adopt aggressive pricing policies to gain market share. As a result, we may not be able to maintain a competitive position against current or future competitors. Our failure to maintain and enhance our competitive position within the market could seriously harm our business, results of operations and financial condition.

## **Intellectual Property**

We rely on a combination of patent, copyright, trademark and trade secret laws and contractual restrictions to protect our proprietary rights. We have one U.S. patent, and we have filed a corresponding application under the Patent Cooperation Treaty relating to the management of tunneling protocols. There can be no assurance that these patent applications will be approved, that any issued patents will protect our intellectual property or that third parties will not challenge them. Furthermore, there can be no assurance that others will not independently develop similar or competing technology or design around any patents that may be issued. We also have four pending trademark applications in the United States and three domain names.

We 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. There can be no assurance that these precautions will prevent misappropriation or infringement of our intellectual property. Monitoring unauthorized use of our products is difficult, and we cannot be certain that the steps we have taken will prevent misappropriation of our proprietary rights, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States.

The broadband access equipment industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the data communications and networking markets have extensive patent portfolios with respect to networking technology. We recently received a letter from Nortel Networks Corporation alleging that a specific feature of our products infringes one of Nortel's patents relating to inverse multiplexing over ATM. We believe that our products do not infringe the relevant Nortel patent and we intend to contest this claim vigorously. However, we cannot assure you that we will prevail in our objection to this claim or any other

claim Nortel may make with respect to other patents it owns, nor can we assure you that this dispute will not result in litigation or that an adverse result or judgment will not adversely affect our financial condition. The Nortel claim could be time-consuming, result in costly litigation and diversion of technical and management personnel, or require us to develop non-infringing technology. If Nortel succeeds in its claim, we would need to enter into royalty or license agreements. These royalty or license agreements, if required, may not be available on acceptable terms, if at all. If there is a successful claim of infringement or if we fail to develop non-infringing technology or license the proprietary rights on a timely basis, our ability to use certain technologies, products and brand names may be limited and our business may be harmed.

From time to time, other third parties, including leading companies, have asserted against others and may assert against us patent, copyright, trademark and other intellectual property rights. We expect that we may increasingly be subject to infringement claims as the numbers of products and competitors in the market for broadband access equipment grow and the functionality of products overlaps. If third parties assert claims or initiate litigation against us or our manufacturers, suppliers or customers alleging infringement of their proprietary rights with respect to our existing or future products, we will be subject to risks similar to those described in the preceding paragraph.

We have agreed and may agree in the future to indemnify certain of our customers against claims that our products infringe upon the proprietary rights of others. We could incur substantial costs in defending ourselves and our customers against infringement claims. In the event of a claim of infringement, we and our customers may be required to obtain one or more licenses from third parties. We cannot assure you that we or our customers could obtain necessary licenses from third parties at a reasonable cost or at all.

We have licensed, and may license in the future, elements of our trademarks, trade dress and similar proprietary rights to third parties. We attempt under such licenses to ensure that the quality of our brand is maintained by these parties, however, such third parties may take actions that could materially and adversely affect the value of our proprietary rights or reputation.

Litigation may be necessary in the future to enforce or defend our proprietary rights or to determine the validity and scope of the proprietary rights of others. This litigation, whether successful or unsuccessful, could result in substantial costs and diversion of management and technical resources. In addition, any inability to protect our proprietary rights may harm our business and financial prospects.

We license from third parties software that is used in our products or is required to develop new products or product enhancements. In the future, third-party licenses may not be available to us on commercially reasonable terms or at all. Third parties who hold exclusive rights to software technology that we seek to license may include our competitors. If we are unable to obtain any necessary third-party licenses, we would be required to redesign our product or obtain substitute technology, which may perform less well, be of lower quality or be more costly.

## **Government Regulation**

In the United States, our products must comply with various regulations and standards defined by the Federal Communications Commission, or FCC, and Underwriters Laboratories. Internationally, products that we develop may be required to comply with standards established by telecommunications authorities in various countries as well as with recommendations of the International Telecommunication Union. Moreover, the encryption technology contained in our products is subject to U.S. export controls, which limit our ability to distribute some versions of our products outside of the United States and Canada. If we do not comply with existing or evolving standards and regulations or if we fail to obtain timely domestic or foreign regulatory approvals or certificates, we would not be able to sell our products where these standards or regulations apply, which may prevent us from sustaining our revenue or maintaining profitability.

The jurisdiction of the FCC extends to the communications industry, to our customers and to the products and services that our customers sell. Future FCC regulations, or regulations set forth by other regulatory bodies, may adversely affect the broadband access services industry. Regulation of our customers may have a material adverse affect on our business, results of operations and financial condition. For example, FCC regulatory policies that affect the availability of data and Internet services may impede our customers' penetration into broadband access markets. In addition, international regulatory bodies are beginning to adopt

standards for the communications industry. The delays that these governmental processes may entail may cause order cancellations or postponements of product purchases by our customers, which would materially adversely affect our business, results of operations and financial condition.

### **Employees**

As of September 30, 2000, we had a total of 155 employees, of whom 150 were based in the United States and five were based internationally. Seventy-nine of our employees are engaged in research and development, 16 in operations, 46 in marketing and sales and 14 in finance and administrative functions. Additionally, we hire consultants as necessary. We believe that our future success will depend in significant part on our ability to attract and retain highly skilled technical, marketing and management personnel. None of our employees are represented by a labor union or subject to a collective bargaining agreement. We believe that our relations with our employees are good.

### **Facilities**

Our executive offices and principal operations are located in Vienna, Virginia. We lease approximately 21,000 square feet of office and laboratory space pursuant to a lease that expires on November 30, 2005. We lease an additional 21,000 square feet in the same building under a lease that expires on August 31, 2002. We also lease sales offices in Tampa, Boston, Denver, Dallas and Atlanta. We believe that our facilities are adequate to meet our current needs, and that additional facilities will be available as we expand in the future.

### **Legal Proceedings**

We are not aware of any pending legal proceedings against us that, individually or in the aggregate, would have a material adverse effect on our business, results of operations or financial condition. We may in the future be party to litigation arising in the course of our business, including claims that we allegedly infringe on third-party trademarks and other intellectual property rights. These claims, even if not meritorious, could result in the expenditure of significant financial and managerial resources.

## MANAGEMENT

The following table sets forth information regarding our executive officers and directors.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Asghar D. Mostafa . . . . .	42	Chairman, President and Chief Executive Officer
Ronald S. Westernik . . . . .	45	Director, Senior Vice President-Business Development and Strategy
James R. Loehndorf, Jr. . . . .	45	Vice President and Chief Scientist
Harry J. D'Andrea . . . . .	44	Chief Financial Officer
Lisa Adams . . . . .	43	Senior Vice President-Worldwide Sales
Glen A. Hunt . . . . .	52	Vice President-Engineering
Lawrence Kraft . . . . .	34	Vice President-Marketing
Alexander H. Dobson . . . . .	37	Vice President-Sales
Jeffrey M. Range . . . . .	40	Vice President-Worldwide Operations
Betsy S. Atkins . . . . .	45	Director
Henry G. Baker . . . . .	53	Director
Robert Ted Enloe, III(1) . . . . .	61	Director
Richard H. Kimball(1) . . . . .	43	Director
Arthur J. Marks(1)(2) . . . . .	55	Director
Edward W. Scott(2) . . . . .	37	Director
John W. Seazholtz(2) . . . . .	63	Director

(1) Member of Audit Committee

(2) Member of Compensation Committee

*Asghar D. Mostafa* has served as our President, Chief Executive Officer and Chairman of the board of directors since our inception. Prior to co-founding our company, Mr. Mostafa served as Vice President and general manager of 3Com Corporation's Broadband Access Communications Division from August 1995 to August 1997. From February 1990 to May 1995, Mr. Mostafa was the founder, President, and Chief Executive Officer of ISDN Systems Corporation. Previously, he was Vice President of Product Development for the telecommunications division of Data General Corporation as well as co-founder and director of engineering for International Communications, Inc., a developer of T1 multiplexers.

*Ronald S. Westernik* has served as our Senior Vice President-Business Development and Strategy since July 1999, as a director since our inception, and previously served as our Vice President-Marketing from our inception to June 1999. Prior to co-founding our company, Mr. Westernik was Vice President of Marketing for the Broadband Access Communications Division at 3Com from June 1996 to June 1997. Mr. Westernik also spent 17-years with AT&T Corp., where he held several positions including Director of Strategy and Planning for Systems Marketing.

*James R. Loehndorf, Jr.* has served as our Vice President and Chief Scientist since our inception. Prior to co-founding our company, Mr. Loehndorf was Systems Architect for the Broadband Access Communications Division at 3Com from October 1996 to September 1997. From May 1989 to October 1996, Mr. Loehndorf was a senior member of the technical staff at Ameritech Corporation's Science and Technology Group, responsible for Ameritech's ADSL strategy. He also served as a data-communications systems architect at ITT/Courier from May 1978 to May 1989.

*Harry J. D'Andrea* has served as our Chief Financial Officer since June 1999. Prior to joining our company, Mr. D'Andrea served as Chief Financial Officer for Call Technologies, Inc. from 1998 to June 1999. He was also Chief Financial Officer of Yurie Systems, Inc. (acquired by Lucent Technologies) from 1997 to 1998 and Chief Financial Officer of American Communications Services, Inc. (now e.spire Communications) in 1996. From 1993 to 1995, Mr. D'Andrea served as Executive Vice President, Chief Financial Officer and Treasurer at Caterair International Corporation. He has also held senior management positions at Marriott Corporation. Mr. D'Andrea serves on the board of directors of Informax, Inc.

*Lisa Adams* has served as our Senior Vice President-Worldwide Sales since September 2000. Prior to joining our company, Ms. Adams served as Executive Vice President of Sales and Business Development for NetRail from September 1999 to September 2000. She was also the Southeastern Sales Manager of Ascend Communications (acquired by Lucent Technologies) from 1997 to 1999. Ms. Adams served as Carrier Account Manager for Cascade Communications Corporation (acquired by Ascend Communications) from October 1994 to June 1997. From 1992 to 1994, Ms. Adams served as Western Regional Manager for On-Stream Networks, Inc. (purchased by 3Com Corporation).

*Glen A. Hunt* has served as our Vice President-Engineering since June 1999 and as our Vice President-Product Development from January 1999 to June 1999. Mr. Hunt joined our company from Netrix Corporation where he was Executive Director of Network Products from July 1992 to January 1997 and Vice President of Marketing from January 1997 to December 1998. Previously, he was Director of Advanced Network Management for Sprint from April 1988 to June 1992 and Director of Product Development at Dynatech Corporation from April 1985 to March 1988.

*Lawrence Kraft* has served as our Vice President-Marketing since June 1999. Prior to joining our company, Mr. Kraft was Vice President of Marketing for NetFax Corporation from July 1998 to October 1998. Previously, he was Manager of Product Marketing at U.S. Robotics (now 3Com) from August 1995 to October 1997, vice president of marketing at ISC from June 1995 to August 1995, and held various positions with Sprint Corporation from June 1992 to June 1995, including Group Product Manager for SprintLink Internet services.

*Alexander H. Dobson* has been with our company since January 1999 and served as Vice President-Sales since October 1999. Mr. Dobson joined our company from 3Com where he managed the worldwide activities of the MCIWorldCom account team from February 1998 to January 1999. Previously, he was the director of carrier sales for U.S. Robotics (now 3Com) Canada from January 1996 to February 1998 and held various sales and sales management positions at Motorola Information Systems from May 1993 to January 1996.

*Jeffrey M. Range* has served as our Vice President-Worldwide Operations since January 2000. Mr. Range joined our company from Newbridge Networks, Inc., where he held several management positions including Vice President, NSA Operations from September 1996 to November 1999. Mr. Range also served as Vice President, Corporate Planning and Logistics for Newbridge Networks, Inc. in Canada from September 1993 to September 1996.

*Betsy S. Atkins* has served as a director of our company since August 2000. Since 1995, Ms. Atkins has served as Chief Executive Officer of Baja Corporation, a consulting firm. Prior to joining Baja, Ms. Atkins was the Chief Executive Officer of NCI, a manufacturing company. Ms. Atkins is a founder of Ascend, a Lucent Network Solutions company and serves on the board of directors of Lucent Technologies. She also serves on the board of directors of Polycom Corporation and Selectica, Inc.

*Henry G. Baker, Ph.D.* has served as a director of our company since August 1998. Since March 1996, Dr. Baker has been a co-founder and general partner of Baker Communications Fund, L.P., a private equity fund that invests exclusively in communications equipment, services and application providers. Prior to co-founding Baker Communications, Dr. Baker consulted for various venture capital firms and start-up companies. From 1980 to 1985, he was a founder and employee of Symbolics, Inc., a computer workstation manufacturer.

*Robert Ted Enloe, III* has served as a director of our company since June 2000. Mr. Enloe has been managing partner of Balquita Partners, Ltd., a real estate and securities investment partnership, since 1996. Mr. Enloe served as Vice Chairman and a member of the Office of the Chief Executive of Compaq Computer Corporation from April to July 1999. From 1975 to 1996 he was president, and from 1992 to 1996 Chief Executive Officer, of Liberté Investors, Inc. Mr. Enloe is also a director of Compaq, Leggett & Platt, Inc. and Data Return Corporation.

*Richard H. Kimball* has served as a director of our company since September 1999. Mr. Kimball is a Managing General Partner of Technology Crossover Ventures, a venture capital firm he co-founded in 1995. Prior to that, Mr. Kimball spent over ten years at Montgomery Securities serving as a securities analyst and



Managing Director. He is currently on the board of directors of Copper Mountain Networks, Vastera, Inc. and several private companies.

*Arthur J. Marks* has served as a director of our company since September 1999. Since 1984, Mr. Marks has been a general partner of New Enterprise Associates, a private equity fund that invests in early stage companies in information technology and medical and life sciences. Mr. Marks serves on the board of directors of Epicor Software, eXcelon Corporation, Progress Software, Talk.com and several private companies.

*Edward W. Scott* has served as a director of our company since August 1998. Since March 1996, Mr. Scott has been a co-founder and general partner of Baker Communications Fund, L.P., a private equity fund that invests exclusively in communications equipment, services and application providers. Prior to co-founding Baker Communications, from December 1990 to March 1996 Mr. Scott was a private equity investor with the Apollo Investment Fund, L.P. Mr. Scott also serves on the board of directors of Akamai Technologies, Inc. and several private companies.

*John W. Seazholtz* has served as a director of our company since April 1998. Since April 2000, Mr. Seazholtz has been Chairman of the board of directors of Westell Technologies, Inc. From May 1998 to April 2000, Mr. Seazholtz was the President and CEO of Telesoft America, Inc. (a subsidiary of Telesoft spa). Prior to Telesoft, he was the Chief Technology Officer for Bell Atlantic Corporation from 1984 to April 1998. Mr. Seazholtz has also worked at New Jersey Bell, Bell Telephone Laboratories and AT&T. Mr. Seazholtz also serves on the board of directors of Odetics, Inc.

#### **Board of Directors**

Our board of directors currently consists of nine members. Upon the completion of this offering, the terms of office of the board of directors will be divided into three classes: Class I, whose term will expire at the annual meeting of stockholders to be held in 2001; Class II, whose term will expire at the annual meeting of stockholders to be held in 2002; and Class III, whose term will expire at the annual meeting of the stockholders to be held in 2003. At each annual meeting of stockholders after the initial classification, the successors to directors whose terms will then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. This classification of the board of directors may have the effect of delaying or preventing a change of control or management of our company. Each officer serves at the discretion of the board of directors. There are no family relationships among any of our directors or officers.

#### ***Board Committees***

Our board of directors currently has two committees: an audit committee and a compensation committee. The audit committee consists of Messrs. Enloe, Kimball and Marks. The audit committee makes recommendations to our board of directors regarding the selection of independent auditors, reviews the results and scope of audit and other services provided by our independent auditors and reviews the accounting principles and auditing practices and procedures to be used for our financial statements. The compensation committee consists of Messrs. Marks, Scott and Seazholtz. The compensation committee makes recommendations to our board of directors regarding our stock plans and the compensation of officers and other managerial employees.

#### ***Director Compensation***

Directors currently do not receive any cash compensation from us for their services as members of our board of directors, although we are authorized to pay members for attendance at meetings or a salary in addition to reimbursement for expenses in connection with attendance at meetings. We have granted options to our directors in the past and we may continue to do so in the future.

#### **Compensation Committee Interlocks and Insider Participation**

None of the members of the compensation committee is currently or has been an officer or employee of ours at any time since our formation. No member of 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.



## **Limitation of Liability and Indemnification**

Pursuant to the Delaware General Corporation Law, we will adopt provisions in our certificate of incorporation that limit or eliminate the personal liability of our directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

Our certificate of incorporation also will allow us to indemnify our officers, directors and other agents to the full extent permitted by Delaware law. We have entered into indemnification agreements with each of our directors and officers that give them additional contractual reassurances regarding the scope of indemnification and that provide additional procedural protection. The indemnification agreements require actions such as:

- indemnifying officers and directors against certain liabilities that may arise because of their status as officers or directors; and
- advancing expenses, as incurred, to officers and directors in connection with a legal proceeding, subject to certain limited exceptions.

The limited liability and indemnification provisions in our certificate of incorporation 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. Moreover, a stockholder's investment in our company may be adversely affected to the extent we pay the costs of settlement or damage awards against our directors and officers 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**

The table below sets forth, for the fiscal year ended December 31, 1999, the compensation earned by:

- our chief executive officer; and
- our next four most highly compensated executive officers, collectively referred to below as the named executive officers.

In accordance with the rules of the Securities and Exchange Commission, the compensation set forth in the table below does not include medical, group life or other benefits which are available to all of our salaried employees, and perquisites and other benefits, securities or property which do not exceed the lesser of \$50,000 or 10% of the person's salary and bonus shown in the table. In the table below, columns required by the

regulations of the Securities and Exchange Commission have been omitted where no information was required to be disclosed under those columns.

Name and Principal Position	Annual Compensation			Long-term Compensation Awards
	Salary	Bonus	Other Annual Compensation	Securities Underlying Options
Asghar D. Mostafa . . . . . President and Chief Executive Officer	\$164,583	\$ —	\$ —	—
Glen A. Hunt . . . . . Vice President-Engineering	138,889	—	—	60,000
James R. Loehndorf, Jr. . . . . Vice President and Chief Scientist	110,000	25,000	96,657 (1)	—
Ronald S. Westernik . . . . . Senior Vice President-Business Development and Strategy	105,208	25,000	—	—
Alexander H. Dobson . . . . . Vice President-Sales	66,458	34,781 (2)	—	151,562

(1) Represents reimbursement of an amount that, after taxes, was sufficient to cover relocation expenses.

(2) Represents bonus and commission income.

### Option Grants in Last Fiscal Year

The following table sets forth information with respect to stock options granted by us to the named executive officers during 1999. All of these options granted by us were granted under the Second 1998 Nonqualified Stock Option Plan and have a term of 10 years, subject to earlier termination in the event the optionee's services to our company cease. See "— Stock Option Plans" for a description of the material terms of these options. During fiscal 1999, we granted options to purchase a total of 1,913,979 shares of common stock under our Second 1998 Nonqualified Stock Option Plan.

Name	Individual Grants				Estimated Value(2)	Potential Realizable Value at Assumed Annual Rates of Price Appreciation for Option Term(3)	
	Number of Securities Underlying Options Granted	Percent of Total Options Granted to Employees in Fiscal 1999 (1)	Exercise price per share (\$/sh)	Expiration date		5%	10%
Asghar D. Mostafa . . . . .	—	—	—	—	—	—	—
Glen A. Hunt . . . . .	60,000	3.1%	\$1.50	1/11/09	\$ 810,000	\$1,376,005	\$2,244,368
James R. Loehndorf, Jr. . . . .	—	—	—	—	—	—	—
Ronald S. Westernik . . . . .	—	—	—	—	—	—	—
Alexander H. Dobson . . . . .	100,000	5.2	1.50	2/15/09	1,350,000	2,293,342	3,740,614
	40,000	2.1	2.00	11/01/09	520,000	897,337	1,476,245
	3,242	0.2	2.00	10/31/09	42,146	72,729	119,650
	1,876	0.1	2.00	11/30/09	24,388	42,085	69,236
	6,444	0.3	2.00	12/31/09	83,772	144,561	237,823

(1) Based on an aggregate of 1,913,979 options granted by us, during the fiscal year ended December 31, 1999, to our employees, including the named executive officers.

(2) Estimated values are computed by (i) multiplying the number of shares of common stock subject to a given option by the initial public offering price of \$15 per share, and (ii) subtracting from that result the aggregate option exercise price.

(3) Potential realizable values are computed by (i) multiplying the number of shares of common stock subject to a given option by the initial public offering price of \$15 per share, (ii) assuming that the aggregate stock value derived from that calculation compounds at the annual 5% or 10% rates shown in the table over the term of the options, and (iii) subtracting from that result the aggregate option exercise price. The potential realizable values set forth above do not take into account applicable tax and

expense payments that may be associated with such option exercises. Actual realizable value, if any, will be dependent on the future price of the common stock on the actual date of exercise, which may be earlier than the stated expiration date. The 5% and 10% table above are mandated by the rules of the Securities and Exchange Commissions and do not represent our estimate or projection of the future price of the common stock on any date. There is no representation either express or implied that the stock appreciation rates for the common stock assumed for purposes of this table will actually be achieved.

### Fiscal Year-End Option Values

The following table sets forth for each of the named executive officers the number and value of securities underlying unexercised stock options that were held by the named executive officer as of December 31, 1999. No stock options were exercised by any named executive officers during 1999.

	Number of Securities Underlying Unexercised Options at December 31, 1999		Value of Unexercised In-the-Money Options at December 31, 1999(1)	
	Exercisable	Unexercisable	Exercisable	Unexercisable
Asghar D. Mostafa .....	—	—	—	—
Glen A. Hunt .....	—	60,000	—	\$ 810,000
James R. Loehndorf, Jr. ....	—	—	—	—
Ronald S. Westernik .....	—	—	—	—
Alexander H. Dobson .....	—	151,562	—	2,020,306

- (1) Options are “in-the-money” if the value of our common stock exceeds the exercise price of the options. There was no public trading market for common stock as of December 31, 1999. We have calculated the value of unexercised in-the-money options at fiscal year-end on the basis of the initial public offering price of \$15 per share, less the aggregate exercise price.

### Stock Option Plans

#### 2000 Stock Incentive Plan

Our board of directors adopted the Advanced Switching Communications, Inc. 2000 Stock Incentive Plan in August 2000, subject to stockholder approval. The purpose of the 2000 Stock Incentive Plan is to provide an incentive to our employees, officers, consultants and directors and advisors through the granting or awarding of incentive and nonqualified stock options, stock appreciation and dividend equivalent rights, restricted stock, performance units, performance shares, shares awards and phantom stock awards.

*Share Reserve.* We have authorized 6,000,000 shares of common stock for issuance under the 2000 Stock Incentive Plan for the grant of stock options and other incentive awards to eligible individuals.

*Eligibility.* Employees, officers, consultants and directors and advisors of our company are eligible to receive awards under the 2000 Stock Incentive Plan.

*Administration.* The 2000 Stock Incentive Plan will be administered by our board of directors or by a committee, which will consist of non-employee directors. Under the 2000 Stock Incentive Plan, the committee will have the authority to, among other things:

- select the employees to whom stock options and other incentive awards will be granted;
- determine the type, size and the terms and conditions of stock options and other incentive awards; and
- establish the terms for treatment of stock options and other incentive awards upon termination of employment or change in control.

*Termination or Amendment.* The 2000 Stock Incentive Plan will terminate on the day preceding the tenth anniversary of the date of its adoption by the board of directors. The board of directors will be able to at any time and from time to time amend or terminate the 2000 Stock Incentive Plan; provided, however, that, to the extent necessary under applicable law, no such change will be effective without the requisite approval of the stockholders. In addition, no such change will alter or adversely impair any rights or obligations under any stock option and other incentive awards previously granted, except with the written consent of the grantee.

*Acceleration of Vesting.* In the event of a change in control, or upon such other events as may be determined by the committee, the committee may provide, in its sole discretion, that each outstanding option will immediately become fully exercisable with respect to the total number of shares subject to the option and each outstanding incentive award will immediately become fully vested. Additionally, if within one year following a change in control, the successor corporation terminates the employee other than for cause or the employee resigns for certain specified reasons, all of his or her options and awards will become vested upon the termination of his or her employment.

*Change in Control.* A change in control occurs when (i) any person acquires beneficial ownership of 50% or more of the company's voting securities; (ii) the identity of more than a majority of members of the board of directors of the company changes, unless the election of the new directors was approved by at least a majority of the directors who were either directors when the plan was adopted or whose election was approved by such directors; or (iii) the consummation of certain mergers, consolidations or reorganizations, an agreement for the sale of all or substantially all of the company's assets or a complete liquidation or dissolution of the company occurs.

### *Other Stock Option Plans*

Since inception, we have granted stock options pursuant to three stock option plans:

- 1999 Nonqualified Stock Option Plan;
- Second 1998 Nonqualified Stock Option Plan; and
- 1998 Nonqualified Stock Option Plan.

Each of these plans is subject to the following terms:

*Eligibility.* Our key personnel, including directors or officers, are eligible to receive awards under each stock plan.

*Administration.* Our compensation committee administers each stock plan. The compensation committee is appointed by our board of directors and is composed of three members of our board of directors. The compensation committee is responsible for the operation of the plans and makes recommendations to our board of directors with respect to who may participate in the plans and the extent of their participation. Upon recommendation of the compensation committee and subject to any applicable limitations contained in the plans, our board of directors selects the recipients of awards and determines:

- the exercise price of options; and
- the duration of options.

Our board of directors authorizes the options granted under the stock plans. Our board of directors may require that any shares purchased by an optionee under each plan be subject to the terms of a stockholders' agreement or that the optionee remain employed by, or render services to, our company.

*Options.* The plans provide for nonstatutory stock options to purchase shares of our common stock. Optionees receive the right to purchase a specified number of shares of common stock at a specified option price and subject to such other terms and conditions as are specified in connection with the option grant. Optionees must pay the exercise price in full in cash at the time an option is exercised under the plan. Options can be exercised in whole or in part. If an optionee ceases to be an employee, officer or director of our company, other than due to retirement or death, any options granted under the plans shall terminate immediately.

*Termination or Amendment.* No award may be granted under the plans after the tenth anniversary of the effective date, but the vesting and effectiveness of the awards previously granted may extend beyond that date. No award under the plans, however, may be exercised after the tenth anniversary of the grant. Our board of directors may at any time terminate, amend or revise the stock plans with respect to any shares as to which options have not been granted and within three months after termination of employment if the optionee engages in activities contrary to the best interests of our company.

### ***1999 Nonqualified Stock Option Plan***

*Share Reserve.* In 1999, our board of directors approved our 1999 Nonqualified Stock Option Plan, which was amended on February 2, 2000 and March 21, 2000. We reserved 4,498,000 shares under our amended 1999 plan. As of June 30, 2000, we granted 1,332,617 options under the 1999 plan. Upon the adoption of the 2000 plan, we will not make any further awards under the 1999 plan.

*Acceleration of Vesting.* Under the plan, in the event of the liquidation or dissolution of our company, or upon such other event as may be determined by the stock option committee, each outstanding option will immediately become fully exercisable with respect to the total number of shares subject to the option.

*Change in Control.* If following a transaction resulting in a change in control the successor corporation terminates the employee other than for cause or the employee resigns for certain specified reasons, all of his or her options will become vested upon the termination date of his or her employment.

### ***Second 1998 Nonqualified Stock Option Plan***

*Share Reserve.* On July 31, 1998, our board of directors adopted our Second 1998 Nonqualified Stock Option Plan, which was amended on August 31, 1998 and September 28, 1999. We reserved 2,216,000 shares under the second 1998 plan and granted 2,572,979 options to purchase shares. The options granted under the second 1998 plan were in excess of the amount of shares reserved due to forfeitures of previous grants. Upon the adoption of the 1999 plan, no further awards have been, or will be, made under the second 1998 plan.

*Acceleration of Vesting.* The second 1998 plan provides that in the event of the: (i) consummation of a merger or consolidation in which our company is not the surviving entity, (ii) consummation of a sale of more than 50% of the outstanding common stock to persons who are not shareholders of our company on the date of the grant, or (iii) liquidation or dissolution of our company, each outstanding option will immediately become fully exercisable with respect to the total number of shares subject to the option.

### ***1998 Nonqualified Stock Option Plan***

*Share Reserve.* On February 3, 1998, our board of directors adopted our 1998 Nonqualified Stock Option Plan. We reserved 2,000,000 shares under the 1998 plan and granted 982,000 options to purchase shares. Upon the adoption of the second 1998 plan, no further awards have been, or will be, made under the 1998 plan.

*Acceleration of Vesting.* Each outstanding option granted under the 1998 plan will immediately become fully exercisable with respect to the total number of shares subject to the option upon the: (i) consummation of a merger or consolidation in which our company is not the surviving entity, (ii) consummation of a sale of more than 50% of the outstanding common stock to persons who are not shareholders of our company on the date of the grant, (iii) liquidation or dissolution of our company, or (iv) effectiveness of a registration statement providing for the initial offering of our shares to the public.

### ***401(k) Plan***

We have established a tax-qualified employee savings and retirement plan commonly known as a 401(k) plan. The 401(k) plan provides that each participant may contribute up to 15% of his or her pre-tax gross compensation (up to the annual statutory limit). We may make profit sharing contributions in our discretion as determined annually by our board of directors. Employer contributions to the plan vest according to a schedule entitling full vesting after four years. We have not made any company contributions to the plan since inception.

### ***Employment Agreements***

*Asghar D. Mostafa.* On August 31, 1998, we entered into an executive employment agreement with Mr. Mostafa, our Chief Executive Officer and President and Chairman of our board of directors, which continues indefinitely unless terminated in accordance with the agreement. The employment agreement provides that we may terminate Mr. Mostafa's employment at any time with cause. Mr. Mostafa may terminate the employment agreement without cause or for good reason upon sixty days written notice to us. In addition, the employment agreement will terminate automatically upon Mr. Mostafa's death or disability.

Under his employment agreement, Mr. Mostafa's base salary was initially \$150,000 per year. Upon the achievement of milestones related to product shipments, which have already been achieved, Mr. Mostafa's annual base salary was increased to \$200,000. Mr. Mostafa's base salary may also be increased annually upon approval of a majority of our board of directors. In addition to a base salary, Mr. Mostafa receives bonuses determined, upon recommendation of our compensation committee, by the consent of a majority of our board of directors.

The employment agreement provides that if Mr. Mostafa's employment is terminated upon death or disability or if he resigns because of a material diminution of his responsibilities and duties, assignment to commute a distance substantially greater than he currently commutes, a decrease in his salary, a purported termination or any termination within 60 days following a change in control, Mr. Mostafa is entitled to continue to receive all benefits under the employment agreement for a period of two years. In addition, if Mr. Mostafa resigns for the reasons described above, he is entitled to a severance payment to be paid in 24 equal monthly installments in an amount equal to:

- three years of his base salary at the time of termination, assuming minimum increases;
- two times the average aggregate bonuses previously paid to him pursuant to his employment agreement; and
- any deferred compensation or accrued vacation time.

Mr. Mostafa's agreement contains restrictive covenants requiring non-disclosure of our proprietary information and restricting him from competing with us or soliciting our employees and customers for a two year period after termination of his employment.

*Other Named Executive Officers.* We have entered into key employee employment agreements with each of Ronald S. Westernik, James R. Loehndorf, Jr., Glen A. Hunt and Alexander H. Dobson under which these officers are entitled to annual base salaries of \$100,000, \$100,000, \$145,000 and \$95,000, respectively. Each agreement has a term of three years. Under these agreements, in addition to his base salary, each officer receives:

- bonuses as determined by our board of directors or our chief executive officer;
- payment of necessary business expenses; and
- benefits that are made available to our other employees including medical and permanent disability insurance.

Each agreement contains restrictive covenants requiring each of the named executive officers to disclose, assign and transfer to us all work product and intellectual property created by him during his employment with us and restricting him from competing with us and soliciting our employees and customers for a two year period after termination of his employment.

Each agreement provides that we may terminate the executive officer at any time with cause and, upon two weeks written notice and the consent of our board of directors, without cause. Each named executive officer may terminate his employment agreement upon two weeks written notice.



## CERTAIN TRANSACTIONS

### Common Stock Issuances

On December 9, 1997, we issued and sold an aggregate of 9,100,000 shares of common stock to our co-founders, Asghar D. Mostafa, Ronald S. Westernik and James R. Loehndorf, Jr. for a total purchase price of \$162,435, or approximately \$0.018 per share.

### *Key Employee Stock Agreements*

We entered into key employee stock agreements with some of our officers and employees, including Ronald S. Westernik and James R. Loehndorf, Jr. in connection with our issuance of common stock to these employees.

*Repurchase Rights.* Under the key employee stock agreements, we are entitled to repurchase all, but not less than all, of the shares of common stock owned by the employee if the employee:

- is terminated for cause;
- commits or permits unauthorized transfers of any of his or her shares; or
- terminates his or her employment without cause.

Our repurchase rights will terminate:

- with respect to 50% of the shares, upon the completion of this offering;
- with respect to another 25% of the shares, six months after the completion of this offering; and
- with respect to the remaining 25%, one year after the completion of this offering.

*Right of First Refusal.* If the employee receives an offer from a third party to purchase his or her shares, the employee must notify us and offer to sell those shares to us. We have the right to repurchase these shares within 60 days of receipt of the notice. If we choose not to repurchase the shares, the employee is free to consummate the sale with a third party. Our right to repurchase these shares terminates:

- with respect to 50% of the shares, upon the completion of this offering;
- with respect to another 25% of the shares, six months after the completion of this offering; and
- with respect to the remaining 25%, one year after the completion of this offering.

### *Stockholders Agreement*

In 1998, we entered into stockholders agreements with Asghar D. Mostafa and Mostafa Investments Limited Partnership. The agreements provide that, in the event of Mr. Mostafa's death, all shares owned by Mr. Mostafa and Mostafa Investments Limited Partnership will be sold to us at a price equal to the greater of (1) the proceeds of life insurance policies owned by us naming Mr. Mostafa as the insured or owned by us for the purpose of repurchasing these shares or (2) the appraised value of the shares. If Mr. Mostafa or Mostafa Investments Limited Partnership transfers the shares or the stockholders agreements terminate, Mr. Mostafa will have the right to purchase from us any life insurance policies naming him as the insured for an amount equal to the greater of (1) the cash value of the policies, (2) the unearned premiums on the policies or (3) \$1.00. If Mr. Mostafa is permanently disabled or terminates his employment with us for any reason, Mr. Mostafa or Mostafa Investments Limited Partnership may cause us to repurchase all of the shares within 180 days at the value of the shares determined as of the last day of the month preceding the date he exercises this right. These stockholders agreements will terminate upon the closing of this offering.

### Preferred Stock Issuances

Since 1998, we have issued and sold shares of convertible redeemable preferred stock to the following persons and entities who are our executive officers, directors or principal stockholders. Upon the closing of the

offering, each share of preferred stock will convert into shares of our common stock. For more detail on shares held by these investors, see “Principal Stockholders.”

Investor	Preferred Stock		Total Consideration Paid to ASC	Total Shares of Common Stock as Converted (1)	Consideration Per Common Share Equivalent
	Number of Shares	Class			
Asghar D. Mostafa (2) .....	9,428	A	\$2,357,000	632,544	\$4.28
	8,800(3)	B	2,200,000	2,524,003	1.00
	292,412	D	2,500,123	634,301	4.28
Ronald S. Westernik .....	100	A	25,000	6,709	4.28
	400	B	100,000	114,727	1.00
James R. Loehndorf, Jr. ....	240	B	60,000	68,836	1.00
John W. Seazholtz .....	240	B	60,000	68,836	1.00
Baker Communications Fund, L.P. ....	3,989,270	C	10,400,000	9,063,260	1.36
	292,412	D	2,500,123	634,302	4.28
New Enterprise Associates (4) .....	1,462,061	D	12,500,621	3,171,511	4.28
Technology Crossover Ventures (5) ....	1,462,061	D	12,500,621	3,171,511	4.28
Robert Ted Enloe, III .....	67,567	E	500,000	68,929	7.40

- (1) Represents the number of shares of common stock issuable upon conversion of the preferred stock as of September 30, 2000. The amount of common stock issuable upon conversion of the preferred stock will increase as dividends continue to accrue on the preferred stock.
- (2) Represents shares originally purchased by Mostafa Investment Limited Partnership and presently owned by Mostafa Venture Fund, LLC, both of which are controlled by Asghar D. Mostafa.
- (3) Asghar D. Mostafa originally purchased 8,800 shares of Class B preferred stock in June 1998, and subsequently sold 4,091 of these shares to Baker Communications on September 10, 1999. The shares in the table are shown before giving effect to this transfer.
- (4) New Enterprise Associates includes the following entities managed by NEA Partners VIII and NEA General Partners, L.P.: New Enterprise Associates VIII, L.P., NEA Presidents’ Fund, L.P. and NEA Ventures 1999, L.P.
- (5) Technology Crossover Ventures includes the following entities managed by Technology Crossover Management III, L.L.C.: TCV III (GP), TCV III, L.P., TCV III (Q), L.P., and TCV III Strategic Partners, L.P.

*Class A Preferred Stock.* In 1998, we issued an aggregate of 9,528 shares of Class A preferred stock to Asghar D. Mostafa and Ronald S. Westernik. The per share price for our Class A preferred stock was \$250 which was paid through the conversion of loans.

*Class B Preferred Stock.* In 1998, we issued an aggregate of 10,960 shares of Class B preferred stock to 15 investors, including Asghar D. Mostafa, Ronald S. Westernik, James R. Loehndorf, Jr. and John Seazholtz. The per share purchase price for our Class B preferred stock was \$250. On September 10, 1999, Asghar D. Mostafa sold 4,091 shares of Class B preferred stock to Baker Communications Fund, L.P. at a per share purchase price of \$338.96.

*Class C Preferred Stock.* In 1998 and 1999, we issued an aggregate of 3,835,286 shares of Class C preferred stock to Baker Communications Fund, L.P. for a purchase price of \$2.71 per share, a portion of which was paid through the conversion of a loan. On September 10, 1999, we issued an additional 153,984 shares of Class C preferred stock to Baker Communications Fund, L.P. in consideration of Baker’s agreement to forego its right to receive additional common shares upon conversion of the Class A shares.

*Class D Preferred Stock.* On September 10, 1999 and October 10, 1999, we issued in two tranches an aggregate of 4,678,594 shares of Class D preferred stock to 13 investors, including Asghar Mostafa, Baker Communications Fund, L.P. and entities affiliated with New Enterprise Associates, Technology Crossover Ventures and Morgan Stanley & Co. Incorporated. The per share purchase price for our Class D preferred

stock was \$8.55 which, with respect to Mr. Mostafa and Baker Communications, was paid through the conversion of loans.

*Class E Preferred Stock.* On June 30, 2000, we issued 67,567 shares of Class E preferred stock to Robert Ted Enloe, III for a purchase price of \$500,000 or \$7.40 per share.

#### **Relationships Among Officers and Directors with Certain Investors**

Four of our directors are partners in entities that own more than five percent of our capital stock. Henry G. Baker and Edward W. Scott are general partners of Baker Communications Fund, L.P., Richard H. Kimball is a general partner of Technology Crossover Ventures and Arthur J. Marks is a general partner of New Enterprise Associates.

#### **Loans from Executive Officers and Stockholders**

Between October 7, 1997 and September 7, 1999, we borrowed an aggregate of approximately \$11.4 million from Asghar D. Mostafa, Ronald S. Westernik, James H. Loehndorf, Jr., and Baker Communications Fund, L.P. Each of these loans was evidenced by an interest-bearing promissory note and was ultimately paid in full or converted into shares of our convertible preferred stock, as set forth in the table below.

<u>Lender</u>	<u>Loans</u>			<u>Conversion into Preferred Stock</u>		
	<u>Date</u>	<u>Amount</u>	<u>Int. Rate</u>	<u>Date</u>	<u>Class</u>	<u>Shares</u>
Asghar D. Mostafa . . . . .	10/7/97	\$ 107,143	6.5%	6/26/98	A	428
	2/6/98	250,000	6.5	6/26/98	A	1,000
	3/9/98	1,750,000	6.5	6/26/98	A	7,000
	6/11/98	250,000	6.5	6/26/98	A	1,000
	4/20/99	1,000,000	5.0	—(1)	—	—
	9/7/99	2,500,000	5.0	9/10/99	D	292,412
Ronald S. Westernik . . . . .	12/5/97	25,000	6.5	6/26/98	A	100
James R. Loehndorf, Jr.(2) . . . . .	12/5/97	12,500	6.5	—	—	—
Baker Communications Fund, L.P. . . . .	4/20/99	3,000,000	5.0	6/30/99	C	1,106,332
	9/7/99	2,500,000	5.0	9/10/99	D	292,412

(1) This promissory note was cancelled and the principal amount was included in the \$2,500,000 loan made to us by Mr. Mostafa on September 7, 1999.

(2) We repaid this loan in full together with accrued interest on July 7, 1998.

#### **Option Grants**

In the past, we have granted options to our executive officers and directors. We intend to grant additional options to our executive officers and directors in the future. See “Management — Option Grants in Last Fiscal Year.”

#### **Indemnification Agreement**

On September 19, 1997, we entered into an indemnification agreement with Asghar D. Mostafa. Under this agreement, Mr. Mostafa agreed to provide securities valued at \$1.3 million as collateral to a bank in order to induce the bank to issue a standby letter of credit in favor of our landlord. In return, we agreed to indemnify Mr. Mostafa against any and all losses related to the lease and agreed to give Mr. Mostafa a first priority security interest in our intellectual property. In 1999, we provided substitute collateral for the letter of credit. Accordingly, the indemnification agreement and the security interest have been terminated.

**Indemnification and Limitation of Director and Officer Liability**

We have entered into indemnification agreements with our directors for the indemnification of and advancement of expenses to such persons to the full extent permitted by law. We also intend to execute such agreements with our future directors.

We believe that the transactions set forth above were made on terms no less favorable to us and at least as beneficial for us as could have been obtained from unaffiliated third parties. All future transactions, including loans between us and our officers, directors, principal stockholders and their affiliates will be approved by a majority of the board of directors, and will continue to be on terms no less favorable to us than could be obtained from unaffiliated third parties.

## PRINCIPAL STOCKHOLDERS

The following table sets forth certain information concerning the beneficial ownership of our common stock as of September 30, 2000, and as adjusted to reflect the sale of the shares of common stock in this offering by:

- each person who is known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all officers and directors as a group.

Unless otherwise indicated, the address of each listed stockholder is c/o Advanced Switching Communications, Inc., 8330 Boone Boulevard, 8th Floor, Vienna, Virginia 22182. The number and percentage of shares beneficially owned are based on 34,865,883 shares of common stock outstanding as of September 30, 2000, assuming conversion of all outstanding shares of preferred stock into common stock, and an additional 6,250,000 shares of common stock outstanding after the completion of this offering, assuming the underwriters' over-allotment option to purchase 937,500 shares of common stock is not exercised. Beneficial ownership is determined under the rules and regulations of the Securities and Exchange Commission. Shares of common stock subject to options or warrants that are currently exercisable or exercisable within 60 days of September 30, 2000 are deemed to be outstanding and beneficially owned by the person holding the options or warrants for the purpose of computing the number of shares beneficially owned and the percentage ownership of that person. The shares subject to options or warrants held by a person are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. Except as indicated in the footnotes to this table, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them. Percentage ownership figures after the offering do not include shares that may be purchased by each person in the offering. Entries denoted by an asterisk represent an amount less than 1%.

<u>Name and Address of Officer, Director or Beneficial Owner</u>	<u>Number of Shares Beneficially Owned Before the Offering</u>	<u>Percent of Shares Beneficially Owned</u>	
		<u>Before the Offering</u>	<u>After the Offering</u>
Asghar D. Mostafa(1) .....	10,617,474	30.5%	25.8%
Baker Communications Fund, L.P. .... c/o Baker Capital Partners, LLC 540 Madison Avenue New York, NY 10022	10,870,936	31.2	26.4
New Enterprise Associates(2) .....	3,171,511	9.1	7.7
11951 Freedom Drive One Freedom Square, Suite 1240 Reston, VA 20190			
Technology Crossover Ventures(3) .....	3,171,511	9.1	7.7
575 High Street Palo Alto, CA 94301			
Ronald S. Westernik .....	721,437	2.1	1.8
James R. Loehndorf, Jr. ....	568,836	1.6	1.4
Alexander Dobson .....	36,279	*	*
Glen A. Hunt .....	15,000	*	*
Betsy S. Atkins .....	23,111	*	*
Henry G. Baker(4) .....	10,870,936	31.2	26.4
c/o Baker Capital Partners, LLC 540 Madison Avenue New York, NY 10022			



<u>Name and Address of Officer, Director or Beneficial Owner</u>	<u>Number of Shares Beneficially Owned Before the Offering</u>	<u>Percent of Shares Beneficially Owned</u>	
		<u>Before the Offering</u>	<u>After the Offering</u>
Robert Ted Enloe, III(5) ..... c/o Balquita Partners, Ltd. 3102 Maple Avenue, Suite 200 Dallas, TX 75201	68,929	*	*
Richard H. Kimball(3) ..... c/o Technology Crossover Ventures 528 Ramona Street Palo Alto, CA 94301	3,171,511	9.1	7.7
Arthur J. Marks(2) ..... c/o New Enterprise Associates 11951 Freedom Drive One Freedom Square, Suite 1240 Reston, VA 20190	3,171,511	9.1	7.7
Edward W. Scott(4) ..... c/o Baker Capital Partners, LLC 540 Madison Avenue New York, NY 10022	10,870,936	31.2	26.4
John W. Seazholtz(6) ..... 399 Princeton Avenue Brick, NJ 08724	208,836	*	*
Directors and officers as a group (16 persons) (7) .....	29,275,470	84.1%	71.4

- (1) Includes 8,000,000 shares owned by Mostafa Investments Limited Partnership, an investment partnership controlled by Asghar D. Mostafa, and 2,564,280 shares owned by Mostafa Venture Fund, LLC, an investment limited liability company controlled by Asghar D. Mostafa. Excludes 67,533 shares owned by Mr. Mostafa's brother, Iraj Mostafa, an employee of ASC.
- (2) Represents shares held by New Enterprise Associates, which includes the following entities managed by NEA Partners VIII and NEA General Partners, L.P.: New Enterprise Associates VIII, L.P., NEA Presidents' Fund, L.P. and NEA Ventures 1999, L.P. The following natural persons exercise voting and/or dispositive powers for the shares held by New Enterprise Associates: Arthur J. Marks, Charles Newhall, John Nehra, Nancy Dorman, Peter Barris, Dick Kramlich, Mark Perry, Peter Morris, Ron Case and Tom McConnell. Arthur J. Marks, a member of our board of directors, is a general partner of NEA Partners VIII, which is the general partner of New Enterprise Associates VIII, L.P., and of NEA General Partners L.P., which is the general partner of NEA Presidents' Fund, L.P. Mr. Marks disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest therein.
- (3) Represents shares held by TCV III (GP), TCV III, L.P., TCV III (Q), L.P., and TCV III Strategic Partners, L.P. (collectively, the "TCV Funds"). Mr. Kimball, a director of the Company, is a Managing Member of Technology Crossover Management III, L.L.C. which is the General Partner of each of the TCV Funds. Mr. Kimball may be deemed to have sole dispositive power and shared voting power with respect to the securities held by the TCV Funds. Mr. Kimball disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. The address for each of these persons and entities is c/o Technology Crossover Ventures, 528 Ramona Street, Palo Alto, California 94301.
- (4) Represents shares held by Baker Communications Fund, L.P. Baker Capital Partners, LLC is the general partner of Baker Communications Fund, L.P. Henry G. Baker and Edward W. Scott, members of our board of directors, are members of Baker Capital Partners, LLC. Each of Mr. Baker and Mr. Scott disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest therein. The following natural persons jointly, but not individually, exercise voting and/or dispositive power with respect to the shares held by Baker Communications Fund, L.P.: John C. Baker; Larry A. Bettino; Ashley Leeds; Edward W. Scott and Henry G. Baker.
- (5) Represents shares held by Balquita Partners, Ltd., a limited partnership controlled by Mr. Enloe.
- (6) Includes 140,000 shares issuable upon the exercise of options granted under our stock option plans.
- (7) Excludes 408,390 shares issuable upon the exercise of options granted under our stock option plans.

## DESCRIPTION OF SECURITIES

After this offering, our authorized capital stock will consist of 250,000,000 shares of common stock, \$.0025 par value per share, and 10,000,000 shares of preferred stock, \$.01 par value per share. As of September 30, 2000, there were outstanding:

- 34,865,883 shares of common stock held by 57 stockholders of record, assuming the conversion into common stock of all outstanding shares of redeemable convertible preferred stock; and
- options to purchase an aggregate of 5,422,245 shares of common stock.

Based upon the number of shares outstanding as of that date, and giving effect to the issuance of the shares of common stock offered by us in this offering, there will be 41,115,883 shares of our common stock outstanding upon the closing of this offering.

The descriptions of common stock and preferred stock reflect changes to our capital structure that will occur upon the closing of this offering in accordance with the amended and restated certificate of incorporation that we will adopt immediately prior to the closing of this offering.

### Common Stock

Holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of common stock are entitled to receive proportionately any such dividends declared by the board of directors, subject to any preferential dividend rights of outstanding preferred stock. Upon the liquidation, dissolution or winding up of our company, the holders of common stock are entitled to receive ratably our net assets available after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to the rights of the holders of shares of any series of preferred stock which we may designate and issue in the future. Certain holders of common stock have the right to require us to register their shares of common stock under the Securities Act in certain circumstances. See "Shares Eligible for Future Sale."

### Preferred Stock

The board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. The board has discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock. The purpose of authorizing the board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, a majority of our outstanding voting stock. We have no present plans to issue any shares of preferred stock.

### Warrants

On March 10, 2000, we issued to one of our customers a warrant to purchase 125,000 shares of common stock at an exercise price of \$15.00 per share. This warrant was amended and restated on June 30, 2000. The warrant has vested, and if not sooner exercised, this warrant will remain outstanding until June 30, 2007. The warrant may be exercised earlier depending on the timing and amount of products purchased.

On June 21, 2000, we issued to one of our customers a warrant to purchase 222,000 shares of common stock at an exercise price of \$8.00 per share. The warrant vested immediately upon issuance and is exercisable at any time until June 21, 2003.

On August 25, 2000, we issued to one of our vendors a warrant to purchase 12,500 shares of common stock at an exercise price of \$13.00 per share. The warrant vested immediately upon issuance and is exercisable until August 25, 2003.

## **Delaware Law and Certain Charter and By-Law Provisions; Anti-Takeover Effects**

We are subject to the provisions of Section 203 of the General Corporation Law of Delaware. In general, the statute prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an “interested stockholder” is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation’s voting stock. The amended and restated certificate of incorporation and amended and restated by-laws to be effective on the closing of this offering provide:

- that the board of directors be divided into three classes, as nearly equal in size as possible, with staggered three-year terms;
- that directors may be removed only for cause by the affirmative vote of the holders of two-thirds of the shares of our capital stock entitled to vote; and
- that any vacancy on the board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of the directors then in office.

The classification of the board of directors and the limitations on the removal of directors and filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, us.

The amended and restated certificate of incorporation and amended and restated by-laws, both effective upon the closing of this offering, also provide that, after the closing of this offering:

- any action required or permitted to be taken by the stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting; and
- special meetings of the stockholders may only be called by the board of directors.

Our amended and restated by-laws, effective upon the closing of this offering, provide that, in order for any matter to be considered “properly brought” before a meeting, a stockholder must comply with requirements regarding advance notice to us. These provisions could delay until the next stockholders’ meeting stockholder actions which are favored by the holders of a majority of our outstanding voting securities. These provisions may also discourage another person or entity from making a tender offer for our common stock, because such person or entity, even if it acquired a majority of our outstanding voting securities, would be able to take action as a stockholder (such as electing new directors or approving a merger) only at a duly called stockholders meeting, and not by written consent. Delaware’s corporation law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation’s certificate of incorporation or by-laws, unless a corporation’s certificate of incorporation or by-laws, as the case may be, requires a greater percentage. Our amended and restated certificate of incorporation, effective upon the closing of this offering, permits the board of directors to amend or repeal our by-laws by majority vote but requires the affirmative vote of the holders of at least 66⅔% of the shares of our capital stock entitled to vote to amend or repeal any of the provisions of our amended and restated by-laws. Generally, our amended and restated certificate of incorporation, effective upon the closing of this offering, may be amended by holders of a majority of the shares of our capital stock issued and outstanding and entitled to vote. The stockholder vote with respect to our certificate of incorporation or by-laws, as amended and restated upon the closing of this offering, would be in addition to any separate class vote that might in the future be required pursuant to the terms of any series of preferred stock that might be outstanding at the time any such amendments are submitted to stockholders.

**Limitation of Liability and Indemnification**

Our amended and restated certificate of incorporation, effective upon the closing of this offering, provides that our directors and officers shall be indemnified by us to the fullest extent authorized by Delaware law. This indemnification would cover all expenses and liabilities reasonably incurred in connection with their services for or on behalf of us. In addition, our amended and restated certificate of incorporation, effective upon the closing of this offering, provides that our directors will not be personally liable for monetary damages to us for breaches of their fiduciary duty as directors, unless they violated their duty of loyalty to us or our stockholders, acted in bad faith, knowingly or intentionally violated the law, authorized illegal dividends or redemptions or derived an improper personal benefit from their action as directors.

**Transfer Agent and Registrar**

The transfer agent and registrar for the common stock is American Stock Transfer & Trust Company.

## SHARES ELIGIBLE FOR FUTURE SALE

Based on shares outstanding as of September 30, 2000, upon completion of this offering, we will have 41,115,883 shares of common stock outstanding (assuming no exercise of outstanding options). See “Prospectus Summary — The Offering” on page 3 for a detailed discussion of shares included and excluded from this number. Of these shares, the 6,250,000 shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act of 1933, as amended, except that any shares purchased by our affiliates, as that term is defined in Rule 144 under the Securities Act, may generally only be sold in compliance with the limitations of Rule 144 described below. The remaining 34,865,883 shares of common stock held by existing stockholders were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. Of these shares, 34,786,383 shares will be subject to “lock-up” agreements described below on the effective date of this offering. Upon expiration of the lock-up agreements, these shares will become eligible for sale subject in most cases to the limitations of either Rule 144 or Rule 701. In addition, holders of stock options could exercise such options and sell certain of the shares issued upon exercise as described below under “Stock Options”.

### Sales of Restricted Shares

<u>Days After Date of This Prospectus</u>	<u>Approximate Shares Eligible for Future Sale</u>	<u>Comment</u>
90 days after effectiveness . . . . .	79,500	Eligible for sale under Rule 144 or Rule 701
180 days after effectiveness . . . . .	34,786,383	Eligible for sale upon expiration of lock-up

Certain of the shares listed in the foregoing table as not eligible for sale until 180 days after effectiveness may become eligible for sale earlier as described below under “Lock-up Agreements”.

In general, under Rule 144, a person (or persons whose shares are aggregated), including an affiliate, who has beneficially owned shares for at least one year is entitled to sell, within any three-month period, a number of such shares that does not exceed the greater of (1) one percent of the then outstanding shares of common stock (approximately 411,160 shares immediately after this offering) or (2) the average weekly trading volume in the common stock in the over-the-counter market during the four calendar weeks preceding the date on which notice of such sale is filed, provided certain requirements concerning availability of public information, manner of sale and notice of sale are satisfied. In addition, our affiliates must comply with the restrictions and requirements of Rule 144, other than the one-year holding period requirement, in order to sell shares of common stock which are not restricted securities.

Under Rule 144(k), a person who is not an affiliate and has not been an affiliate for at least three months prior to the sale and who has beneficially owned shares for at least two years may resell such shares without compliance with the foregoing requirements. In meeting the one-and two-year holding periods described above, a holder of shares can include the holding periods of a prior owner who was not an affiliate. The one-and two-year holding periods described above do not begin to run until the full purchase price or other consideration is paid by the person acquiring the shares from the issuer or an affiliate. Rule 701 provides that currently outstanding shares of common stock acquired under our employee compensation plans, and shares of common stock acquired upon exercise of presently outstanding options granted under these plans, may be resold beginning 90 days after the date of this prospectus:

- by persons, other than affiliates, 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, subject to certain limitations.

### Stock Options

At September 30, 2000, approximately 325,000 shares of common stock were issuable pursuant to immediately exercisable options granted under our 1998 Nonqualified Stock Option Plan and the balance of the shares granted under our 1998 plan will vest automatically upon the closing of the offering. Approximately 200,000 shares are not subject to lock-up agreements with the underwriters. At September 30, 2000, approximately 398,200 shares of common stock were issuable pursuant to immediately exercisable options granted under our Second 1998 Nonqualified Stock Option Plan of which approximately 130,200 shares are



not subject to lock-up agreements with the underwriters. At September 30, 2000, there were 23,333 shares of common stock issuable pursuant to immediately exercisable options granted under the 1999 Nonqualified Stock Option Plan of which 21,875 are not subject to lock-up agreements with the underwriters. At September 30, 2000, there were 163,668 shares of common stock issuable pursuant to immediately exercisable options granted under the 2000 Stock Incentive Plan of which 3,556 are subject to lock-up agreements with the underwriter. We intend to file a registration statement on Form S-8 under the Securities Act as soon as practicable following the date of this prospectus, to register up to 4,139,532 shares of common stock issuable under our stock plans, including the 668,575 shares of common stock subject to immediately exercisable options as of September 30, 2000. This registration statement is expected to become effective upon filing.

### **Lock-up Agreements**

All officers and directors and certain stockholders holding an aggregate of approximately 34,786,383 shares of our common stock have agreed, subject to certain exceptions, not to offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly (or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of), any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock for a period of 180 days after the date of this prospectus, without the prior written consent of Morgan Stanley & Co. Incorporated. However, if the reported last sale price of the common stock on the Nasdaq National Market is at least twice the initial public offering price per share for 20 of the 30 trading days ending on the last trading day preceding the 120th day after the date of this prospectus, 25% of the shares of our common stock subject to the 180-day restriction described above will be released from these restrictions provided that the stockholder is not an executive officer of our company. The release of these shares will occur on the later to occur of:

- the 120th day after the date of this prospectus if we make our first post-offering public release of our quarterly or annual earnings results during the period beginning on the eleventh trading day after the date of this prospectus and ending on the day prior to the 120th day after the date of this prospectus; or
- on the second trading day following the first public release of our quarterly or annual results occurring on or after the 120th day after the date of this prospectus, if we do not make our first post-offering public release as set forth in the preceding clause.

Morgan Stanley & Co. Incorporated may in its sole discretion choose to release any or all of these shares from such restrictions prior to the expiration of such 120- or 180-day period. However, Morgan Stanley & Co. Incorporated does not have any current intention to release shares of common stock subject to lock-up agreements. Any determination to release any shares subject to the lock-up agreements would be based on a number of factors at the time of determination, including the market price of the common stock, the liquidity of the trading market for the common stock, general market conditions, the number of shares proposed to be sold and the timing, purpose and terms of the proposed sale.

### **Registration Rights**

After this offering, the holders of approximately 20,738,045 shares of common stock will be entitled to rights with respect to the registration of such shares under the Securities Act. Under the terms of the agreement between us and the holders of such registrable securities, if we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders exercising registration rights, such holders are entitled to notice of such registration and are entitled to include shares of such common stock therein. Additionally, such holders are also entitled to demand registration rights pursuant to which they may require us on up to two occasions to file a registration statement under the Securities Act at our expense with respect to shares of our common stock, and we are required to use our best efforts to effect such registration. Further, holders may require us to file two additional registration statements on Form S-3 at our expense during any one year period. All of these registration rights are subject to conditions and limitations, among them the right of the underwriters of an offering to limit the number of shares included in such registration.

## UNITED STATES TAX CONSEQUENCES TO NON-UNITED STATES HOLDERS

The following is a general discussion of the principal United States federal income and estate tax consequences of the ownership and disposition of our common stock by a non-U.S. holder. As used in this discussion, the term “non-U.S. holder” means a beneficial owner of our common stock that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation or partnership created or organized in or under the laws of the United States or of any political subdivision of the United States, other than a partnership treated as foreign under U.S. Treasury regulations;
- an estate whose income is includable in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust, in general, if a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust.

An individual may be treated as a resident of the United States in any calendar year for U.S. federal income tax purposes, instead of a nonresident, by, among other ways, being present in the United States on at least 31 days in that calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. For purposes of this calculation, you would count all of the days present in the current year, one-third of the days present in the immediately preceding year and one-sixth of the days present in the second preceding year. Residents are taxed for U.S. federal income tax purposes as if they were U.S. citizens.

This discussion does not consider:

- U.S. state and local or non-U.S. tax consequences;
- specific facts and circumstances that may be relevant to a particular non-U.S. holder’s tax position, including, if the non-U.S. holder is a partnership or trust that the U.S. tax consequences of holding and disposing of our common stock may be affected by certain determinations made at the partner or beneficiary level;
- the tax consequences for the shareholders, partners or beneficiaries of a non-U.S. holder;
- special tax rules that may apply to particular non-U.S. holders, such as financial institutions, insurance companies, tax-exempt organizations, U.S. expatriates, broker-dealers, and traders in securities; or
- special tax rules that may apply to a non-U.S. holder that holds our common stock as part of a “straddle,” “hedge,” “conversion transaction,” “synthetic security” or other integrated investment.

The following discussion is based on provisions of the U.S. Internal Revenue Code of 1986, as amended, applicable existing and proposed U.S. Treasury regulations and administrative and judicial interpretations, all as in effect on the date of this prospectus, and all of which are subject to change, retroactively or prospectively. The following summary assumes that a non-U.S. holder holds our common stock as a capital asset. **Each non-U.S. holder should consult a tax advisor regarding the U.S. federal, state, local and non-U.S. income and other tax consequences of acquiring, holding and disposing of shares of our common stock.**

### Dividends

We do not anticipate paying cash dividends on our common stock in the foreseeable future. See “Dividend Policy.” In the event, however, that we pay dividends on our common stock, we will have to withhold a U.S. federal withholding tax at a rate of 30%, or a lower rate under an applicable income tax treaty, from the gross amount of the dividends paid to a non-U.S. holder. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Dividends that are effectively connected with a non-U.S. holder's conduct of a trade or business in the United States or, if an income tax treaty applies, attributable to a permanent establishment in the United States, are generally taxed on a net income basis at the regular graduated rates and in the manner applicable to U.S. persons. In that case, we will not have to withhold U.S. federal withholding tax if the non-U.S. holder complies with applicable certification and disclosure requirements, which generally requires the non-U.S. holder to provide a U.S. taxpayer identification number. In addition, a "branch profits tax" may be imposed at a 30% rate, or a lower rate under an applicable income tax treaty, on dividends received by a foreign corporation that are effectively connected with the conduct of a trade or business in the United States.

Dividends paid prior to 2001 to an address in a foreign country are presumed, absent actual knowledge to the contrary, to be paid to a resident of such country for purposes of the withholding discussed above and for purposes of determining the applicability of a tax treaty rate. For dividends paid after December 31, 2000, a non-U.S. holder who claims the benefit of an applicable income tax treaty rate generally will be required to satisfy applicable certification and other requirements. However,

- in the case of common stock held by a foreign partnership, the certification requirement will generally be applied to the partners of the partnership and the partnership will be required to provide certain information, including a U.S. taxpayer identification number;
- in the case of common stock held by a foreign trust, the certification requirement will be applied to the trust or the beneficial owners of the trust depending on whether the trust is a "foreign complex trust," "foreign simple trust" or "foreign grantor trust" as defined in the U.S. Treasury regulations;
- in the case of common stock held by a foreign estate, the certification requirement will be applied to the estate; and
- look-through rules will apply for tiered partnerships, foreign simple trusts and foreign grantor trusts.

A non-U.S. holder that is a foreign trust is urged to consult its own tax advisor regarding its status under these U.S. Treasury regulations and the certification requirement applicable to it.

A non-U.S. holder that is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for a refund with the U.S. Internal Revenue Service.

The U.S. Treasury regulations generally effective for payments made after December 31, 2000 also provide special rules for dividend payments made to foreign intermediaries, U.S. or foreign wholly owned entities that are disregarded for U.S. federal income tax purposes and entities that are treated as fiscally transparent in the United States, the applicable income tax treaty jurisdiction, or both. In addition, recently enacted legislation, effective August 5, 1997, denies income tax treaty benefits to foreigners receiving income derived through a partnership, or otherwise fiscally transparent entity, in certain circumstances. Prospective investors should consult with their own tax advisers concerning the effect, if any, of these new Treasury regulations and this recent legislation on an investment in our common stock.

### **Gain on Disposition of Common Stock**

A non-U.S. holder generally will not be taxed on gain recognized on a disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States or, alternatively, if an income tax treaty applies, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States; in these cases, the gain will be taxed on a net income basis at the regular graduated rates and in the manner applicable to U.S. persons (unless an applicable treaty provides otherwise) and, if the non-U.S. holder is a foreign corporation, the "branch profits tax" described above may also apply to its "effectively connected earnings and profits," within the meaning of the Internal Revenue Code for the taxable year, as adjusted for specific items, unless it qualifies for a lower rate under an applicable tax treaty;

- the non-U.S. holder is an individual who holds our common stock as a capital asset, is present in the United States for at least 183 days in the taxable year of the disposition and meets other requirements, then such individual generally will be subject to a flat 30% tax on the gain derived from a sale, which may be offset by United States capital losses, notwithstanding the fact that such individual is not considered a resident alien of the U.S. Thus, individual non-U.S. holders who have spent (or expect to spend) more than a *de minimis* period of time in the United States in the taxable year in which they contemplate a sale of common stock are urged to consult their tax advisers prior to the sale concerning the U.S. tax consequences of such sale;
- the non-U.S. holder is subject to tax under the provisions of the U.S. tax law applicable to certain United States expatriates; or
- we are or have been a “U.S. real property holding corporation” for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition or the period that the non-U.S. holder held our common stock.

Generally, a corporation is a “U.S. real property holding corporation” if the fair market value of its “U.S. real property interests” equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. The tax relating to stock in a U.S. real property holding corporation generally will not apply to a non-U.S. holder whose holdings, direct and indirect, at all times during the applicable period, constituted 5% or less of our common stock, provided that our common stock was regularly traded on an established securities market. We believe that we are not currently, and we do not anticipate becoming in the future, a U.S. real property holding corporation for U.S. federal income tax purposes. If we were, or were to become, a U.S. real property holding corporation, we believe that our common stock would be treated as “regularly traded.”

### **Federal Estate Tax**

Common stock owned or treated as owned by an individual who is a non-U.S. holder at the time of death will be included in the individual’s gross estate for U.S. federal estate tax purposes, unless an applicable estate tax or other treaty provides otherwise and, therefore, may be subject to U.S. federal estate tax.

### **Information Reporting and Backup Withholding Tax**

We must report annually to the U.S. Internal Revenue Service and to each non-U.S. holder the amount of dividends paid to that holder and the tax withheld from those dividends. Copies of the information returns reporting those dividends and withholding may also be made available to the tax authorities in the country in which the non-U.S. holder is a resident under the provisions of an applicable income tax treaty or agreement.

Under some circumstances, U.S. Treasury regulations require additional information reporting and backup withholding at a rate of 31% on some payments on common stock. Under currently applicable law, non-U.S. holders generally will be exempt from these additional information reporting requirements and from backup withholding on dividends paid prior to 2001 if we either were required to withhold a U.S. federal withholding tax from those dividends or we paid those dividends to an address outside the United States. Backup withholding and information reporting generally will apply to dividends paid to addresses inside the United States on shares of our common stock to beneficial owners that are not “exempt recipients” and that fail to provide identifying information in the manner required. After 2000, the gross amount of dividends paid to a non-U.S. holder that fails to certify its non-U.S. holder status in accordance with applicable U.S. Treasury regulations generally will be reduced by backup withholding at a rate of 31% regardless of whether an address is inside or outside the United States.

The payment of the proceeds of the disposition of common stock by a non-U.S. holder to or through the U.S. office of a broker or a non-U.S. office of a U.S. broker generally will be reported to the U.S. Internal Revenue Service and reduced by backup withholding at a rate of 31% unless the non-U.S. holder either certifies its status as a non-U.S. holder under penalties of perjury or otherwise establishes an exemption and the broker has no actual knowledge to the contrary. The payment of the proceeds of the disposition of common

stock by a non-U.S. holder to or through a non-U.S. office of a non-U.S. broker will not be reduced by backup withholding or reported to the U.S. Internal Revenue Service unless the non-U.S. broker is a “U.S. related person.” In general, the payment of proceeds from the disposition of common stock by or through a non-U.S. office of a broker that is a U.S. person or a “U.S. related person” will be reported to the U.S. Internal Revenue Service and, after 2000, may in limited circumstances be reduced by backup withholding at a rate of 31%, unless the broker receives a statement from the non-U.S. holder, signed under penalty of perjury, certifying its non-U.S. status or the broker has documentary evidence in its files that the holder is a non-U.S. holder and the broker has no actual knowledge to the contrary. For this purpose, a “U.S. related person” is:

- a “controlled foreign corporation” for U.S. federal income tax purposes;
- a foreign person 50% or more of whose gross income from all sources for the three-year period ending with the close of its taxable year preceding the payment, or for such part of the period that the broker has been in existence, is derived from activities that are effectively connected with the conduct of a U.S. trade or business; or
- effective after 2000, a foreign partnership if, at any time during the taxable year, (A) at least 50% of the capital or profits interest in the partnership is owned by U.S. persons, or (B) the partnership is engaged in a U.S. trade or business.

Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them, including changes to these rules that will become effective after 2000. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder will be refunded, or credited against the holder’s U.S. federal income tax liability, if any, provided that the required information is furnished to the U.S. Internal Revenue Service.



## UNDERWRITERS

Under the terms and subject to the conditions contained in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. Incorporated, Chase Securities Inc., and FleetBoston Robertson Stephens Inc. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares indicated below:

	<u>Number of Shares</u>
Morgan Stanley & Co. Incorporated.....	2,825,000
Chase Securities Inc. ....	1,412,500
FleetBoston Robertson Stephens Inc. ....	1,412,500
CIBC World Markets Corp. ....	75,000
Dain Rauscher Wessels ....	75,000
Ferris, Baker Watts, Incorporated ....	75,000
First Union Securities, Inc. ....	75,000
Guzman & Company ....	75,000
Edward D. Jones & Co., L.P. ....	75,000
Nutmeg Securities, Ltd. ....	75,000
Tucker Anthony Incorporated ....	75,000
Total .....	<u>6,250,000</u>

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters over-allotment option described below.

Morgan Stanley Dean Witter Online, Inc., an affiliate of Morgan Stanley & Co. Incorporated, may act as a selected dealer in connection with the offering to facilitate Internet distribution.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the public offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of \$0.68 a share under the public offering price. Any underwriter may allow, and such dealers may reallocate, a concession not in excess of \$0.00 a share to other underwriters or to certain dealers. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an aggregate of 937,500 additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table. If the underwriters' option is exercised in full, the total price to the public would be \$107,812,500, the total underwriters' discounts and commissions would be \$7,546,875 and total proceeds to us would be \$100,265,625.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed five percent of the total number of shares of common stock offered by them.

Our common stock has been approved for quotation on the Nasdaq National Market under the symbol "ASCX."

We, our directors, executive officers and certain other stockholders have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, each of us will not, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock

whether any transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. This lock-up restriction is subject, in certain circumstances for shares held by stockholders other than executive officers of ASC, to earlier release. See “Shares Eligible for Future Sale — Lock-up Agreements.”

The restrictions described in the preceding paragraph do not apply to:

- the sale of any shares to the underwriters;
- the issuance of shares of common stock by us upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing;
- the sale of shares of common stock or the grant of an option to purchase common stock under our stock plans described in this prospectus;
- the issuance by us to our customers or potential customers of warrants to purchase common stock existing on the date of the underwriting agreement;
- the issuance by us of shares of common stock (or options, warrants or rights to purchase shares of common stock) in connection with our acquisition of other businesses, products or technologies, provided that the aggregate number of shares issued (or issuable upon exercise of options, warrants or rights issued) does not exceed 6,000,000 shares; or
- transactions by any person other than us relating to shares of common stock or other securities acquired in open market transactions after the completion of the offering of the shares.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may over-allot in connection with the offering, creating a short position in the common stock for their own account. In addition, to cover over-allotments or to stabilize the price of the common stock, the underwriters may bid for, and purchase, shares of common stock in the open market. Finally, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the common stock in the offering, if the syndicate repurchases previously distributed common stock in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the common stock above independent market levels. The underwriters are not required to engage in these activities, and may end any of these activities at any time.

From time to time, Morgan Stanley & Co. Incorporated has provided investment banking services to us. In September 1999, Morgan Stanley Venture Partners III, L.P., Morgan Stanley Venture Investors, III, L.P. and The Morgan Stanley Venture Partners Entrepreneur Fund, L.P., affiliates of Morgan Stanley & Co. Incorporated, purchased 12.5% of our Class D preferred stock.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

At our request, the underwriters have reserved for sale, at the initial offering price, up to 312,500 shares offered hereby for our directors, officers, employees, business associates, and related persons. The number of

shares of common stock available for sale to the general public will be reduced to the extent such persons purchase such reserved shares. Any reserved shares which are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered hereby.

### **Pricing of the Offering**

Prior to this offering, there has been no public market for the common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and our industry in general, sales, earnings and our other financial operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities and certain financial and operating information of companies engaged in activities similar to ours.

### **LEGAL MATTERS**

Fried, Frank, Harris, Shriver & Jacobson, a partnership including professional corporations, in Washington, D.C., will pass upon the validity of the shares of common stock offered by this prospectus. Davis Polk & Wardwell, in New York, New York, will pass upon certain legal matters relating to the offering for the underwriters.

### **EXPERTS**

The financial statements as of December 31, 1998 and 1999, and for the period from September 10, 1997 (inception) through December 31, 1997 and for each of the two years in the period ended December 31, 1999, included in this prospectus have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report appearing in this prospectus, and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

### **WHERE YOU CAN FIND MORE INFORMATION**

We filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act of 1933 with respect to the shares of common stock offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and its exhibits and schedules. Particular items are omitted in accordance with the rules and regulations of the Securities and Exchange Commission. For further information about our company and the common stock offered by this prospectus, we refer you to the registration statement, including its exhibits and schedules. You may read and copy the registration statement at the Securities and Exchange Commission's following locations:

Public Reference Room  
Room 1024  
450 Fifth Street, N.W.  
Washington, DC 20549

New York Regional Office  
Seven World Trade Center  
Suite 1300  
New York, NY 10048

Chicago Regional Office  
Citicorp Center  
500 West Madison Street  
Suite 1400  
Chicago, IL 60661-2511

You may also obtain copies of the registration statement by mail from the Public Reference Section of the Securities and Exchange Commission at 450 Fifth Street, N.W., Judiciary Plaza, Washington, D.C. 20549 or by telephone at 1-800-SEC-0330. The registration statement is also available to the public from commercial document retrieval services and at the Securities and Exchange Commission's World Wide Web site located at <http://www.sec.gov>.

We intend to furnish our stockholders with annual reports containing financial statements audited by an independent public accounting firm and make available to our stockholders quarterly reports for the first three quarters of each fiscal year containing interim unaudited financial information.

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**INDEX TO FINANCIAL STATEMENTS**

	<u><b>Page</b></u>
Independent Auditors' Report .....	F-2
Balance Sheets .....	F-3
Statements of Operations .....	F-4
Statements of Stockholders' Equity (Deficit) .....	F-5
Statements of Cash Flows .....	F-6
Statements of Comprehensive Loss .....	F-7
Notes to Financial Statements.....	F-8

## INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders of  
Advanced Switching Communications, Inc.  
McLean, Virginia

We have audited the accompanying balance sheets of Advanced Switching Communications, Inc. (the "Company") as of December 31, 1998 and 1999, and the related statements of operations, comprehensive loss, stockholders' equity (deficit), and cash flows for the period from September 10, 1997 (inception) to December 31, 1997, and the years ended December 31, 1998 and 1999. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion of these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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, such financial statements present fairly, in all material respects, the financial position of Advanced Switching Communications, Inc. as of December 31, 1998 and 1999, and the results of its operations and its cash flows for the period from September 10, 1997 (inception) to December 31, 1997, and the years ended December 31, 1998 and 1999, in conformity with accounting principles generally accepted in the United States of America.

/s/ DELOITTE & TOUCHE LLP

McLean, VA  
June 9, 2000



# ADVANCED SWITCHING COMMUNICATIONS, INC.

## BALANCE SHEETS (in thousands, except per share amounts)

	December 31,		June 30,	Pro Forma
	1998	1999	2000	June 30,
			(unaudited)	2000
				(unaudited)
				(Note 1)
Current assets:				
Cash and cash equivalents	\$ 1,449	\$ 33,012	\$ 5,464	
Marketable securities	3,481	—	11,212	
Accounts receivable	—	2,116	8,848	
Inventories	7	2,088	4,964	
Other current assets	29	1,368	432	
Total current assets	4,966	38,584	30,920	
Property and equipment, net	1,484	2,092	3,139	
Marketable securities	—	—	8,872	
Other assets	1	1,019	1,021	
	<u>6,451</u>	<u>41,695</u>	<u>43,952</u>	
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)				
Current liabilities:				
Accounts payable	548	2,183	8,703	
Accrued compensation and related benefits	276	833	599	
Accrued warranty costs	—	143	623	
Other accrued liabilities	27	160	749	
Current portion of long-term debt	199	196	164	
Total current liabilities	1,050	3,515	10,838	
Long-term debt, less current portion	286	98	37	
Deferred rent	—	40	65	
	<u>1,336</u>	<u>3,653</u>	<u>10,940</u>	
Commitments and contingencies				
Class A redeemable convertible preferred stock \$1.00 par value; 10 authorized; 10 issued and outstanding, liquidation value of \$2,382 at December 31, 1999 and June 30, 2000 (unaudited)	2,462	2,617	2,694	\$ —
Class B redeemable convertible preferred stock \$1.00 par value; 14 authorized; 11 issued and outstanding, liquidation value of \$2,740 at December 31, 1999 and June 30, 2000 (unaudited)	2,832	3,010	3,099	—
Class C redeemable convertible preferred stock \$0.01 par value; 4,154 authorized; 2,173, 3,989 and 3,989 issued and outstanding at December 31, 1998, 1999 and June 30, 2000 (unaudited), respectively, liquidation value of \$11,639 at December 31, 1999 and \$12,063 at June 30, 2000 (unaudited)	5,299	10,989	11,478	—
Class D redeemable convertible preferred stock \$0.01 par value; 4,700 authorized; 0, 4,679 and 4,679 issued and outstanding at December 31, 1998, 1999 and June 30, 2000 (unaudited), respectively, liquidation value of \$40,954 at December 31, 1999 and \$42,550 at June 30, 2000 (unaudited)	—	38,901	40,612	—
Class E redeemable convertible preferred stock \$0.01 par value; 100 authorized; 0, 0 and 68 issued and outstanding at December 31, 1998, 1999 and June 30, 2000 (unaudited), respectively, liquidation value of \$500 at June 30, 2000 (unaudited)	—	—	500	—
Stockholders' equity (deficit):				
Common stock \$0.0025 par value; 37,908 authorized; 11,960, 11,530 and 11,689 issued and outstanding at December 31, 1998, 1999 and June 30, 2000 (unaudited), respectively	30	30	30	86
Additional paid-in-capital	—	—	7,682	66,009
Accumulated deficit	(5,542)	(16,544)	(25,634)	(25,634)
Treasury stock, 490 shares	—	(200)	(200)	(200)
Deferred stock compensation	—	(761)	(7,212)	(7,212)
Accumulated comprehensive loss	34	—	(37)	(37)
Total stockholders' equity (deficit)	<u>(5,478)</u>	<u>(17,475)</u>	<u>(25,371)</u>	<u>\$ 33,012</u>
	<u>\$ 6,451</u>	<u>\$ 41,695</u>	<u>\$ 43,952</u>	

*The accompanying notes are an integral part of the financial statements.*

**ADVANCED SWITCHING COMMUNICATIONS, INC.**

**STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)

	Period from Inception (September 10, 1997) through December 31, 1997	Year Ended December 31,		Six Months Ended June 30,	
		1998	1999	1999	2000
				(unaudited)	
Revenue .....	\$ —	\$ —	\$ 4,278	\$ 402	\$ 12,933
Cost of revenue .....	<u>—</u>	<u>—</u>	<u>2,839</u>	<u>337</u>	<u>9,556</u>
Gross profit .....	—	—	1,439	65	3,377
Operating expenses:					
Research and development, excluding stock compensation amortization amounts(1) .....	111	3,717	6,718	3,021	5,528
Sales and marketing, excluding stock compensation amortization amounts(1) .....	73	799	3,209	1,292	6,543
General and administrative, excluding stock compensation amortization amounts(1) .....	125	611	1,251	484	961
Amortization of stock compensation(1) .....	<u>—</u>	<u>—</u>	<u>42</u>	<u>—</u>	<u>491</u>
Total operating expenses.....	<u>309</u>	<u>5,127</u>	<u>11,220</u>	<u>4,797</u>	<u>13,523</u>
Loss from operations .....	(309)	(5,127)	(9,781)	(4,732)	(10,146)
Other income (expenses):					
Interest income .....	18	87	539	112	1,068
Interest expense .....	<u>(2)</u>	<u>(71)</u>	<u>(87)</u>	<u>(20)</u>	<u>(12)</u>
Total other income (expense) ..	<u>16</u>	<u>16</u>	<u>452</u>	<u>92</u>	<u>1,056</u>
Net loss .....	(293)	(5,111)	(9,329)	(4,640)	(9,090)
Accretion of transaction costs and accrued dividends on redeemable convertible preferred stock .....	<u>—</u>	<u>(367)</u>	<u>(2,589)</u>	<u>(482)</u>	<u>(2,815)</u>
Net loss applicable to common shareholders .....	<u>\$ (293)</u>	<u>\$ (5,478)</u>	<u>\$ (11,918)</u>	<u>\$ (5,122)</u>	<u>\$ (11,905)</u>
Basic and diluted loss per share .....	<u>\$ (0.05)</u>	<u>\$ (0.48)</u>	<u>\$ (1.01)</u>	<u>\$ (0.43)</u>	<u>\$ (1.03)</u>
Weighted average shares used in net loss per share calculations .....	<u>5,742</u>	<u>11,389</u>	<u>11,789</u>	<u>11,958</u>	<u>11,601</u>
Pro forma net loss per share, basic and diluted (unaudited) (Note 1) .....			<u>\$ (0.38)</u>		<u>\$ (0.28)</u>
Shares used in computing pro forma basic and diluted net loss per share (unaudited) (Note 1) .....			<u>24,251</u>		<u>32,462</u>
<b>(1) Amortization of stock compensation:</b>					
Research and development.....	\$ —	\$ —	\$ 5	\$ —	\$ 207
Sales and marketing .....	<u>—</u>	<u>—</u>	<u>35</u>	<u>—</u>	<u>233</u>
General and administrative .....	<u>—</u>	<u>—</u>	<u>2</u>	<u>—</u>	<u>51</u>
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 42</u>	<u>\$ —</u>	<u>\$ 491</u>

*The accompanying notes are an integral part of the financial statements.*

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)**  
**(in thousands)**

	<u>Common Stock</u>		<u>Additional</u>	<u>Treasury</u>	<u>Accumulated</u>	<u>Deferred</u>	<u>Accumulated</u>	<u>Stockholder's</u>
	<u>Shares</u>	<u>Amount</u>	<u>Paid-In</u>	<u>Stock</u>	<u>Deficit</u>	<u>Compensation</u>	<u>Comprehensive</u>	<u>Equity</u>
			<u>Capital</u>				<u>Loss</u>	<u>(Deficit)</u>
Shares issued .....	9,580	\$24	\$ 147	\$ —	\$ —	\$ —	\$ —	\$ 171
Net loss .....	—	—	—	—	(293)	—	—	(293)
Balance, December 31, 1997 .....	9,580	24	147	—	(293)	—	—	(122)
Shares issued .....	2,380	6	36	—	—	—	—	42
Options granted for consulting services	—	—	46	—	—	—	—	46
Dividends accrued on redeemable, convertible preferred stock .....	—	—	(229)	—	(100)	—	—	(329)
Accretion of transaction costs on redeemable, convertible preferred stock .....	—	—	—	—	(38)	—	—	(38)
Unrealized gain on securities .....	—	—	—	—	—	—	34	34
Net loss .....	—	—	—	—	(5,111)	—	—	(5,111)
Balance, December 31, 1998 .....	11,960	30	—	—	(5,542)	—	34	(5,478)
Shares repurchased .....	—	—	—	(200)	—	—	—	(200)
Options granted for consulting services	—	—	47	—	—	—	—	47
Gain on sale of securities .....	—	—	—	—	—	—	(34)	(34)
Options exercised .....	59	—	66	—	—	—	—	66
Deferred compensation expense associated with equity awards .....	—	—	803	—	—	(803)	—	—
Amortization of deferred compensation	—	—	—	—	—	42	—	42
Dividends accrued on redeemable, convertible preferred stock .....	—	—	(916)	—	(1,035)	—	—	(1,951)
Preferred stock dividend .....	—	—	—	—	(418)	—	—	(418)
Accretion of transaction costs on redeemable, convertible preferred stock .....	—	—	—	—	(220)	—	—	(220)
Net loss .....	—	—	—	—	(9,329)	—	—	(9,329)
Balance, December 31, 1999 .....	12,019	30	—	(200)	(16,544)	(761)	—	(17,475)
Options exercised (unaudited) .....	159	—	196	—	—	—	—	196
Deferred compensation expense associated with equity awards (unaudited) .....	—	—	6,942	—	—	(6,942)	—	—
Amortization of deferred compensation	—	—	—	—	—	491	—	491
Issuance of warrants (unaudited) ....	—	—	2,981	—	—	—	—	2,981
Beneficial conversion feature associated with preferred stock issued to a related party (unaudited) .....	—	—	378	—	—	—	—	378
Dividends accrued on redeemable, convertible preferred stock (unaudited) .....	—	—	(2,193)	—	—	—	—	(2,193)
Accretion of transaction costs and beneficial conversion feature on redeemable, convertible preferred stock (unaudited) .....	—	—	(622)	—	—	—	—	(622)
Unrealized gain on securities (unaudited) .....	—	—	—	—	—	—	(37)	(37)
Net loss .....	—	—	—	—	(9,090)	—	—	(9,090)
Balance, June 30, 2000 (unaudited) ..	<u>12,178</u>	<u>\$30</u>	<u>\$ 7,682</u>	<u>\$ (200)</u>	<u>\$ (25,634)</u>	<u>\$ (7,212)</u>	<u>\$ (37)</u>	<u>\$ (25,371)</u>

*The accompanying notes are an integral part of the financial statements.*

**ADVANCED SWITCHING COMMUNICATIONS, INC.**

**STATEMENTS OF CASH FLOWS**

(in thousands)

	Period from inception (September 10, 1997) through December 31, 1997	Year Ended December 31,		Six Months Ended June 30,	
		1998	1999	1999	2000
				(Unaudited)	
<b>Operating activities:</b>					
Net loss .....	\$(293)	\$(5,111)	\$ (9,329)	\$(4,640)	\$ (9,090)
Adjustments to reconcile net loss to net cash used in operating activities:					
Loss on disposal of equipment .....	—	—	—	—	13
Realized gain on marketable securities .....	—	(45)	(34)	(34)	(105)
Depreciation and amortization .....	5	216	657	293	593
Amortization of stock compensation .....	—	—	42	—	491
Warrant issuance costs .....	—	—	—	—	2,981
Deferred rent .....	71	—	40	20	25
Consulting expense related to stock options		46	47		—
Changes in operating assets and liabilities:					
Accounts receivable .....	—	—	(2,116)	(316)	(6,732)
Inventory .....	—	(7)	(2,081)	(2,012)	(2,876)
Other current assets .....	(1)	(28)	(1,339)	19	936
Accounts payable .....	35	513	1,635	1,359	6,520
Accrued liabilities .....	57	246	833	27	835
Other assets .....	—	(1)	(1,018)	(1,010)	(2)
Net cash used in operating activities .....	<u>(126)</u>	<u>(4,171)</u>	<u>(12,663)</u>	<u>(6,294)</u>	<u>(6,411)</u>
<b>Investing activities:</b>					
Purchases of property and equipment .....	(122)	(1,583)	(1,266)	(406)	(1,653)
Proceeds from sales of marketable securities ..	—	—	3,481	3,481	14,046
Purchases of marketable securities .....	<u>(153)</u>	<u>(3,362)</u>	<u>—</u>	<u>—</u>	<u>(34,134)</u>
Net cash used in (provided by) investing activities .....	<u>(275)</u>	<u>(4,945)</u>	<u>2,215</u>	<u>3,075</u>	<u>(21,741)</u>
<b>Financing activities:</b>					
Proceeds from issuance of common stock .....	171	40	—	—	—
Proceeds from issuance of preferred stock ....	—	10,270	42,336	4,507	500
Proceeds from exercise of stock options .....	—	—	66	—	196
Proceeds from issuance of notes payable .....	333	408	—	1,000	—
Principal payments on notes payable .....	(5)	(251)	(191)	(98)	(92)
Repurchase of treasury shares .....	<u>—</u>	<u>—</u>	<u>(200)</u>	<u>—</u>	<u>—</u>
Net cash provided by (used in) financing activities .....	<u>499</u>	<u>10,467</u>	<u>42,011</u>	<u>(5,409)</u>	<u>604</u>
Net increase (decrease) in cash and cash equivalents .....	98	1,351	31,563	2,190	(27,548)
Cash and cash equivalents, beginning of period ..	<u>—</u>	<u>98</u>	<u>1,449</u>	<u>1,449</u>	<u>33,012</u>
Cash and cash equivalents, end of period .....	<u>\$ 98</u>	<u>\$ 1,449</u>	<u>\$ 33,012</u>	<u>\$ 3,639</u>	<u>\$ 5,464</u>
<b>Supplemental schedule of cash flow information:</b>					
Interest paid .....	<u>\$ 2</u>	<u>\$ 27</u>	<u>\$ 86</u>	<u>\$ 19</u>	<u>\$ 14</u>

*The accompanying notes are an integral part of the financial statements.*

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**STATEMENTS OF COMPREHENSIVE LOSS**  
**(amounts in thousands)**

	Period from inception (September 10, 1997) through December 31, 1997	Year Ended December 31,		Six Months Ended June 30,	
		1998	1999	1999	2000
				(Unaudited)	
Net loss .....	\$(293)	\$(5,111)	\$(9,329)	\$(4,640)	\$(9,090)
Unrealized gain (loss) on marketable securities	<u>—</u>	<u>34</u>	<u>(34)</u>	<u>—</u>	<u>(37)</u>
Comprehensive loss .....	<u>\$(293)</u>	<u>\$(5,077)</u>	<u>\$(9,363)</u>	<u>\$(4,640)</u>	<u>\$(9,127)</u>

*The accompanying notes are an integral part of the financial statements.*

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS**

**1. Summary of Significant Accounting Policies**

*Nature of Operations*

Advanced Switching Communications, Inc. ("ASC" or the "Company") was incorporated in the state of Delaware in September 1997. The Company provides next-generation broadband access platforms to telecommunications service providers. ASC's products enable its customers to transmit voice, data and multimedia traffic more rapidly and cost-effectively while preserving their investments in existing communications systems. Through December 31, 1999, the Company principally marketed its products in the United States. Through December 31, 1998, the Company was considered to be in the development stage and was principally engaged in research and development, raising capital and building its management team. The Company shipped its first product in March 1999.

*Revenue Recognition*

The Company recognizes revenue from product sales upon shipment. When the arrangement with the customer includes obtaining customer acceptance, revenue is recognized when customer acceptance has been received. Revenue is recognized in amounts expected to be realized upon final settlement.

ASC provides post-contract support under a warranty agreement for its products. Upon shipment to its customers, ASC provides for the estimated cost to repair or replace products to be returned under warranty. ASC's warranty period is typically 12 months from the date of shipment to the end-user. This support is considered insignificant to the sale of the products and therefore the Company recognizes any revenue associated with post-contract support in conjunction with the sale of the product.

*Research and Development*

Research and development costs are charged to operations as incurred.

*Cash and Cash Equivalents and Marketable Securities*

The Company considers all highly-liquid investments purchased with an original maturity of three months or less to be cash equivalents, and investments with original maturity dates greater than three months but less than 12 months to be short-term investments. To date, all marketable securities have been classified as available-for-sale and have been carried at fair value, with unrealized gains and losses, reported as a separate component of comprehensive income. The fair value of marketable securities was determined based on quoted market prices at the reporting date for those instruments. The cost of securities sold is based on specific identification. Premiums and discounts are amortized over the period from acquisition to maturity and are included in investment income, along with interest and dividends.

At December 31, 1998, the Company held U.S. mortgage-backed and corporate debt securities with an amortized cost of \$3,447,000 and a fair value of \$3,481,000, resulting in an unrealized holding gain of \$34,000. At June 30, 2000, the Company held U.S. mortgage-backed and corporate debt securities, commercial paper and taxable auction securities. The amortized cost of such securities at June 30, 2000 was \$24,807,000 (unaudited) resulting in an unrealized holding loss of \$37,000 (unaudited).

*Inventories*

Inventories are stated at the lower of cost (average cost basis) or market (net realizable value).



**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

*Other Assets*

Other assets include prepaid manufacturing costs to the contract manufacturers of \$1,314,000 at December 31, 1999. These prepaid costs were being reduced as completed products were received by the Company. There were no such prepaid costs at June 30, 2000 (unaudited).

*Property and Equipment*

Property and equipment is stated at cost and depreciated over the estimated useful lives of the assets using the straight-line method, based upon the following asset lives:

Computer and telecommunications equipment	3 years
Computer software	3 years
Furniture and office equipment	5 years
Leasehold improvements	Shorter of lease term or useful life of asset

*Income Taxes*

Income taxes are accounted for using the liability method. Under this method, deferred tax assets and liabilities are recorded based on temporary differences between the financial statement amounts and the tax bases of assets and liabilities measured using enacted tax rates in effect for the year in which the differences are expected to reverse. The Company periodically evaluates the realizability of its net deferred tax assets and records a valuation allowance if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

*Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the dates of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates.

*Accounting for Stock-Based Compensation*

As permitted under Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation", ("SFAS 123"), the Company accounts for stock option grants to employees and directors in accordance with Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees". Accordingly, ASC recognizes no compensation expense for stock option grants with an exercise price equal to or greater than the fair value of the shares at the date of grant. Stock options issued to consultants of the Company are accounted for under SFAS 123, which requires an expense to be recognized using an option-pricing model. The expense recorded in connection with the stock option grants to consultants was \$46,000 and \$47,000 for the years ended December 31, 1998 and 1999, respectively.

*Fair Value of Financial Instruments*

The carrying value of the Company's cash and cash equivalents, marketable securities, accounts receivable, accounts payable and accrued liabilities approximate their fair values due to their relatively short maturities. The fair value of long-term marketable securities is estimated based on current interest rates, degrees of risk and remaining maturities.

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

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

*Concentration of Credit Risk, Product and Significant Customers and Supplier Information*

Financial instruments which potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, investments in marketable securities and accounts receivable. The Company places its temporary cash investments in money market funds and debt instruments with high credit-quality issuers with no more than 10% of the portfolio due from any one issuer. The Company's accounts receivable are derived from revenue earned from customers located in the United States. The Company performs ongoing credit evaluations of its customers' financial condition and, generally, requires no collateral from its customers. The Company maintains an allowance for doubtful accounts receivable based upon the expected collectibility of accounts receivable.

During the year ended December 31, 1999, two customers accounted for 22% and 53% of the Company's revenue and at December 31, 1999, these two customers accounted for 29% and 49% of total trade accounts receivable. During the six months ended June 30, 2000, these same two customers accounted for 11% and 10% of the Company's revenue and at June 30, 2000, these two customers accounted for 9% and 5% of total trade receivables (unaudited). One additional customer accounted for 53% of the Company's revenue and 62% of total trade receivables at June 30, 2000 (unaudited).

The Company is currently dependent on two contract manufacturers and some of the key components in the Company's product come from single or limited sources of supply. If the Company is unable to manufacture and ship our products on a timely basis, this could result in lost or delayed revenue or increased manufacturing costs.

*Pro Forma Information (unaudited)*

Under the terms of the Company's agreements with the holders of the Class A, B, C, D and E Redeemable Convertible Preferred Stock ("Convertible Preferred Stock") (Note 7), all of such preferred stock will be converted automatically into shares of common stock upon closing of the Company's initial public offering and, therefore, all such shares have been converted for the pro forma presentation. The pro forma balance sheet information at June 30, 2000 reflects the conversion of the Class A, B, C, D and E preferred stock into 22,651,937 shares of common stock as if the conversion occurred on June 30, 2000. The Common Shares to be issued resulting from an initial public offering and its related net proceeds are excluded from such pro forma information.

*Net Loss Per Share*

The Company computes net loss per share in accordance with SFAS No. 128, "Earnings per Share". Under the provisions of SFAS No. 128, basic net loss per share is computed by dividing the net loss applicable to common shareholders for the period by the weighted average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing the net loss for the period by the weighted average number of common and common equivalent shares outstanding during the period, if dilutive. Common equivalent shares consist of incremental common shares issuable upon the exercise of stock options and upon conversion of Class A, B, C, D and E Convertible Preferred Stock.

The Company has excluded all potential common shares from the calculation of diluted loss per common share because all such securities are anti-dilutive for all periods presented. The total number of potential common shares excluded from the calculations of diluted net loss per share was zero, 7,870,000, 22,272,000, 14,069,000 (unaudited) and 26,981,000 (unaudited) for the period ended December 31, 1997, the years ended December 31, 1998 and 1999 and the six months ended June 30, 1999 and 2000, respectively.

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

*Pro Forma Net Loss Per Share (Unaudited)*

Pro forma net loss per share for the year ended December 31, 1999 and the six months ended June 30, 2000 is computed using the weighted average number of common shares outstanding, including the pro forma effects of the automatic conversion of the Company's Class A, B, C, D and E Convertible Preferred Stock into shares of the Company's common stock effective upon the closing of the Company's initial public offering as if such conversion occurred on January 1, 1999, or at date of original issuance, if later.

The following table sets forth the pro forma computation of basic and diluted net loss per share for the periods indicated (in thousands, except per share amounts):

	<u>Year Ended December 31, 1999</u>	<u>Six Months Ended June 30, 2000</u>
Numerator:		
Net loss applicable to common shareholders .....	\$(11,918)	\$(11,905)
Accretion of transaction costs and accrued dividends on redeemable, convertible preferred stock .....	<u>2,589</u>	<u>(2,815)</u>
Pro Forma net loss .....	<u>\$ (9,329)</u>	<u>\$ (9,090)</u>
Historical weighted average common shares outstanding .....	11,789	11,601
Weighted average number of shares assumed upon conversion of redeemable convertible common stock .....	<u>12,462</u>	<u>20,861</u>
Shares used in computing pro forma basic and diluted net loss per share .....	<u>24,251</u>	<u>32,462</u>
Pro forma basic and diluted net loss per share .....	<u>\$ (0.38)</u>	<u>\$ (0.28)</u>

*New Accounting Pronouncements*

In June 1998, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 established methods of accounting for derivative financial instruments and hedging activities related to those instruments as well as other hedging activities. Because the Company currently holds no derivative instruments and does not engage in hedging activities, the Company expects that the adoption of SFAS No. 133 will not have a material impact on its financial position, results of operations or cash flows. The Company will be required to implement SFAS No. 133 for the year ending December 31, 2001.

In March 2000, the FASB issued Interpretation No. 44, "Accounting for Certain Transactions Involving Stock Compensation, an Interpretation of APB Opinion No. 25." With the exception of certain provisions which require earlier application, this interpretation is effective for all applicable transactions beginning July 1, 2000. The Company does not expect that the adoption of this Interpretation will have a material impact on its financial statements.

*Unaudited Interim Results*

The accompanying balance sheet as of June 30, 2000, the statements of operations, cash flows and comprehensive loss for the six months ended June 30, 1999 and 2000 and the statement of stockholders' equity for the six months ended June 30, 2000 are unaudited.

In the opinion of management, these statements have been prepared on the same basis as the audited financial statements and include all adjustments, consisting only of normal recurring adjustments, necessary for the fair statement of the results of these periods. The data disclosed in notes to the financial statements for

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

these periods is also unaudited. Results of the six months ended June 30, 2000 are not indicative of results the entire year.

**2. Inventories**

Inventories consisted of the following at December 31, 1998 and 1999 and June 30, 2000 (in thousands):

	<u>1998</u>	<u>1999</u>	<u>(Unaudited)</u> <u>2000</u>
Raw materials .....	\$ 7	\$1,065	\$ 373
Work in process .....	—	798	6
Finished goods.....	<u>—</u>	<u>225</u>	<u>4,585</u>
	<u>\$ 7</u>	<u>\$2,088</u>	<u>\$4,964</u>

**3. Property and Equipment**

Property and equipment consisted of the following at December 31, 1998 and 1999 (in thousands):

	<u>1998</u>	<u>1999</u>
Computer software and equipment .....	\$ 808	\$1,454
Office equipment .....	650	1,074
Furniture and fixtures .....	231	419
Equipment under capital leases .....	<u>16</u>	<u>23</u>
	1,705	2,970
Less accumulated depreciation .....	<u>(221)</u>	<u>(878)</u>
Property and equipment, net .....	<u>\$1,484</u>	<u>\$2,092</u>

**4. Income Taxes**

No provisions for income taxes have been recorded as the Company has incurred net losses since inception.

At December 31, 1998 and 1999, the Company had approximately \$5.4 million and \$14.7 million of federal and state net operating loss carryforwards available to offset future taxable income. The Federal and State net operating loss carryforwards begin to expire in 2012 and 2004, respectively. Under the Tax Reform Act of 1986, the amounts of and benefits from net operating loss carryforwards may be impaired or limited in certain circumstances. Events which cause limitations in the amount of net operating losses that the Company may utilize in any one year include, but are not limited to, a cumulative ownership change of more than 50%, as defined, over a three year period. Such a change may have occurred as a result of the preferred stock issuances during 1998 and 1999.

As of December 31, 1998 and 1999, the Company had gross deferred tax assets of approximately \$2.2 million and \$5.9 million, respectively, related primarily to net operating loss carryforwards that are available to reduce future taxable income through 2019. Management believes that, based on a number of factors, the available objective evidence creates sufficient uncertainty regarding the realizability of the deferred tax assets such that a full valuation allowance has been recorded.

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

**5. Long-Term Debt**

Amounts borrowed consisted of the following at December 31, 1998 and 1999 (in thousands):

	<u>1998</u>	<u>1999</u>
Bank note payable, interest at prime plus 2% (10.5% at December 31, 1999), due in monthly installments of \$5 plus interest through November 2000, collateralized by the Company's furniture .....	\$ 110	\$ 53
Bank note payable, interest at prime plus 0.5% (9.0% at December 31, 1999), due in monthly installments of \$2 plus interest through April 2001, collateralized by substantially all of the Company's assets .....	43	26
Bank note payable, interest at prime plus 0.75% (9.25% at December 31, 1999), due in monthly installments of \$10 plus interest through June 2001, collateralized by substantially all of the Company assets .....	<u>322</u>	<u>204</u>
	475	283
Amounts under capital lease (Note 6) .....	10	11
Less current portion .....	<u>(199)</u>	<u>(196)</u>
Long-term portion .....	<u>\$ 286</u>	<u>\$ 98</u>

**6. Commitments**

The Company leases office space and equipment under various noncancelable operating and capital leases with various expiration dates through 2005. The terms of the facility leases provide for rental payments on a graduated scale. The facility leases for the Company's headquarters expire in August 2002 and November 2005. The Company leases office space for sales personnel in various cities throughout the U.S. These leases are on a month-to-month arrangement or are for a period of no longer than 1 year. The Company recognizes rent expense on a straight-line basis over the lease periods. Rental expense for all operating leases for the period from September 7, 1997 through December 31, 1997 and the years ended December 31, 1998 and 1999 was \$71,000, \$355,000 and \$673,000, respectively.

Future minimum lease payments under noncancelable operating and capital leases, including operating lease commitments entered into subsequent to December 31, 1999, are as follows:

	<u>Capital Leases</u>	<u>Operating Leases</u>
2000 .....	\$ 7	\$1,097
2001 .....	2	1,181
2002 .....	2	1,017
2003 .....	—	625
2004 .....	—	639
Thereafter .....	<u>—</u>	<u>600</u>
	11	\$5,159
Less current portion .....	<u>(7)</u>	
Long-term portion .....	<u>\$ 4</u>	

In connection with the lease of the Company's headquarters, the Company is required to maintain \$1,000,000 in an escrow account with the bank that has issued a letter of credit to the landlord. This escrow requirement terminates at the sooner of the end of the lease term or the time at which ASC has maintained a

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

net worth in excess of \$5,000,000 for 24 consecutive months. This amount has been recorded in long-term other assets for the year ended December 31, 1999.

Subsequent to December 31, 1999, the Company received a letter from Nortel Networks Corporation alleging that our products infringe one of Nortel's patents relating to inverse multiplexing over ATM. Management intends to contest this claim vigorously. Management is of the opinion that any liability or loss associated with this claim will not have a material adverse effect on the Company's operations or liquidity.

The Company is involved in various other claims arising in the normal course of business. Management is of the opinion that any liability or loss associated with such matters will not have a material adverse effect on the Company's operations or liquidity.

**7. Redeemable Convertible Preferred Stock**

Issuances of redeemable convertible preferred stock during the years ended December 31, 1998 and 1999 and the six months ended June 30, 2000 (unaudited) were as follows (in thousands).

Class	Shares		Proceeds	Issuance Costs	Date Issued
	Authorized	Issued			
A .....	10	10	\$ 2,382	\$ —	June 1998
B .....	14	11	2,740	—	June 1998
C .....	4,154	2,173	5,893	789	August 1998
		1,662	4,506	11	June 1999
		154(1)	—(1)	—	September 1999
D .....	4,700	4,094	35,002	1,822	September 1999
		585	5,000	338	October 1999
E .....	100	68	500	—	June 2000
	<u>8,978</u>	<u>8,757</u>	<u>\$56,023</u>	<u>\$2,960</u>	

- (1) This tranche of Class C Redeemable Convertible Preferred shares was issued in accordance with the anti-dilutive provisions for Class C at the time of the sale of Class D Redeemable Convertible Preferred shares. As there were no proceeds in connection with the Class C shares, the number of shares valued at the liquidation price per share was treated as a dividend in order to record the Class C at its liquidation value in the balance sheet.

The holders of the Redeemable Convertible Preferred Stock have various rights and preferences as follows:

*Voting*

Each share of Class A, B, C and D has voting rights equal to an equivalent number of shares of Common Stock into which it is convertible and votes together as one class with the Common Stock.

*Dividends*

Holders of Class A, B, C and D Redeemable Convertible Preferred Stock are entitled to receive cumulative dividends at the per annum rate of 6.5%, 6.5%, 8% and 8% of the original purchase price paid, respectively, whether or not declared, payable quarterly in arrears, when and if declared by the Board of Directors. The holders of Class A, B, C and D have rights to receive a pro rata share of dividends paid to holders of common stock. No dividends on Convertible Preferred Stock or Common Stock have been declared from inception through June 30, 2000. All accrued dividends are included in the Convertible Preferred Stock balances at the respective balance sheet dates.



**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

*Liquidation*

In the event of any involuntary liquidation, dissolution or winding up of the Company the holders of Class A, B, C and D Convertible Preferred Stock are entitled to receive an amount of \$250, \$250, \$2.71 and \$8.55 per share, respectively, plus any accrued dividends, whether or not declared, prior to and in preference to any distribution to the holders of Common Stock.

*Conversion*

Each share of Class A and B Convertible Preferred Stock is convertible, at the option of the holder, upon the occurrence of a triggering event which is defined as follows: (1) the closing of a public offering of Common Stock generating aggregate proceeds of \$50,000,000, or (2) the Company enters into a merger consolidation or other similar combination, or (3) the Company achieves an annual gross revenue of more than \$25,000,000. Each share of Class C and D Redeemable Convertible Preferred Stock may be converted at any time at the option of the holder. Each share of Class C and D Redeemable Convertible Preferred Stock automatically converts upon: (1) the closing of a public offering of Common Stock generating aggregate proceeds of \$50,000,000 or (2) the Company enters into a merger, consolidation or other similar combination for a total purchase price of the equity of the Company of at least \$250,000,000. Upon the conversion of Class C shares, Class A and B shares automatically convert into shares of common stock. Class A, B, C and D preferred shares are convertible into common shares based on the following calculation: the sum of the original issuance price per share multiplied by the number of shares outstanding plus the cumulative accrued dividends, divided by the applicable conversion ratio. The original issue price per share is \$250, \$250, \$2.7117 and \$8.55 for Classes A, B, C and D, respectively. The conversion ratios are 4.275, 1.00, 1.356 and 4.275 for Classes A, B, C and D, respectively.

At December 31, 1999, the Company has reserved 612,000, 3,010,000, 8,584,000 and 9,580,000 shares of Common Stock for the conversion of Class A, B, C and D convertible preferred stock, respectively.

At June 30, 2000, the Company has reserved 630,000, 3,099,000, 8,902,000, 9,953,000 and 68,000 shares of Common Stock for the conversion of Class A, B, C, D and E Convertible Preferred Stock, respectively (unaudited).

*Redemption*

The Class A and B shares are redeemable at the option of the holder upon the same triggering event under which it is convertible, at a cash price equal to the applicable liquidation preference. Shares of Class C and D are redeemable at the option of the holder any time on or after August 31, 2005 at a cash price equal to the applicable liquidation preference.

*Series E Convertible Redeemable Preferred Stock (unaudited)*

On June 30, 2000, the Company issued 67,567 shares of Class E convertible redeemable preferred stock to a board member for a purchase price of \$500,000 or \$7.40 per share. These shares are convertible at any time at the option of the holder and automatically convert to common stock upon an initial public offering. The total number of common shares into which they are convertible is 67,567 at the issuance date. At the time of issuance of the Class E shares, the deemed fair value of the underlying common shares was \$13.00 per share. Therefore, \$378,000 was initially allocated to additional paid-in capital as a presumed beneficial conversion feature. As the Class E shares are convertible at any time, the entire amount of \$378,000 was immediately accreted to the Series E Convertible Redeemable Preferred Stock on June 30, 2000.

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

**8. Common Stock**

In February 1998, the Company's Board of Directors approved a 20-for-1 stock split of the issued and outstanding common stock and in July 1998, the Company's Board of Directors approved a 10-for-1 stock split of the issued and outstanding common stock. In August 1999, the Company's Board of Directors approved a 2-for-1 stock split of the issued and outstanding common stock. The 2-for-1 split became effective in November 1999. All share and per share amounts for common stock have been adjusted accordingly.

The Company issued 339,000 and 31,000 options to purchase shares of Common Stock to consultants and other service providers of the Company in 1998 and 1999, respectively. The fair value of the options issued was determined to be \$46,000 and \$47,000 in 1998 and 1999, respectively, using the Black-Scholes option pricing model and has been recognized in general and administrative expenses. There were no options granted to third parties during the quarters ended June 30, 1999 and 2000.

*Warrants (unaudited)*

In March 2000, in connection with the signing of a purchase agreement with a customer, the Company issued to Intermedia Communications, Inc. a warrant to purchase 125,000 shares of common stock at an exercise price of \$15.00 per share. Under the original warrant agreement, the warrant vested and became exercisable as product payments were made. In June 2000, the Company amended and restated the warrant agreement to provide for immediate vesting of the warrant and to permit Intermedia to exercise the warrant after seven years, or earlier depending on the timing and amount of products purchased. The Company accounted for the warrant as a cost of establishing a relationship with a potential customer and recorded a one-time charge of \$1,131,000 in June 2000 as a sales and marketing cost. The Company determined the cost associated with the warrant under the Black-Scholes option pricing model using the following assumptions: volatility of 70%; risk-free interest rate of 6.3%; no expected dividend yield and a term of seven years. As of June 30, 2000, there have been no sales to Intermedia.

In June 2000, in connection with the signing of a purchase agreement with Broadband Office, Inc. for the sale of ASC products, the Company issued a warrant to purchase 222,000 shares at an exercise price of \$8.00 per share. The warrant vests immediately and is exercisable at any time over the next 36 months. The Company views the issuance of this warrant as a cost of developing a long-term business relationship and, therefore, the associated expense was recorded as a sales and marketing cost. Therefore, in June, the Company recognized the cost as an operating expense in the amount of \$1,850,000. The cost was determined using the Black-Scholes option pricing model and the following assumptions: volatility of 70%; risk-free interest rate of 6.0%; no expected dividend yield and a term of three years.

**9. Stock Options**

In February 1998 and July 1998, the Company adopted the Advanced Switching Communications, Inc. 1998 and Second 1998 Nonqualified Stock Option Plans (collectively "the 1998 Plan") to offer key employees, board members and third parties who provide valuable services to the Company the option to purchase shares of Common Stock. Under the 1998 Plan, the Company issues options to eligible participants at an exercise price determined by the Board of Directors, at the date of grant. Options vest 25% annually over a period of four years from the date of grant and expire ten years from the date of grant. Vesting may accelerate under certain circumstances including an initial public offering, change of ownership, liquidation or dissolution of the Company. Options will no longer be granted under the 1998 plan.

In December 1999, the Company adopted the Advanced Switching Communications, Inc. 1999 Nonqualified Stock Option Plan (the "1999 Plan"). The 1999 Plan provides for option grants to employees, board members and third parties to purchase shares of Common Stock at an exercise price determined by the Board of Directors at the date of grant. Options vest 25% on the first anniversary of the grant date at which time the remaining options vest monthly over a three-year period. Options granted under the 1999 Plan expire

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

ten years from the date of grant. Vesting may accelerate under certain circumstances such as liquidation or dissolution of the Company. The maximum number of options available for grants under the 1999 Plan was 3,198,000 at December 31, 1999. The Board of Directors approved an increase to this amount subsequent to December 31, 1999 to 4,498,000 (unaudited).

The following table presents activity under the Plans (in thousands):

	<u>Number of Shares</u>	<u>Weighted Average Exercise Price</u>
Balance, January 1, 1998. ....	—	\$ —
Options Granted .....	1,651	1.05
Options Exercised .....	—	—
Options Cancelled .....	—	—
Balance, December 31, 1998. ....	1,651	\$1.05
Options Granted .....	1,914	1.65
Options Exercised .....	(59)	1.14
Options Cancelled .....	(260)	1.50
Balance, December 31, 1999. ....	3,246	\$1.35
Options Granted (unaudited) .....	1,324	3.77
Options Exercised (unaudited) .....	(159)	1.23
Options Cancelled (unaudited) .....	(222)	1.65
Balance, June 30, 2000 (unaudited) .....	<u>4,189</u>	<u>\$2.11</u>

The following table summarizes information about stock options outstanding at December 31, 1999 (amounts in thousands, except dollars):

<u>Range of Exercise Prices</u>	<u>Options Outstanding</u>			<u>Vested Options Exercisable</u>	
	<u>Number of Shares Outstanding</u>	<u>Weighted Avg. Remaining Contractual Life</u>	<u>Weighted Average Exercise Price</u>	<u>Number Exercisable</u>	<u>Weighted Avg. Exercise Price</u>
\$ 0.60	240	8.15 years	\$0.60	60	\$0.60
1.00	1,043	8.49 years	1.00	225	1.00
1.50	1,347	9.31 years	1.50	48	1.50
1.75	40	8.75 years	1.75	10	1.75
2.00	576	9.91 years	2.00	—	2.00
<u>\$0.60-2.00</u>	<u>3,246</u>	<u>9.06 years</u>	<u>\$1.35</u>	<u>343</u>	<u>\$1.02</u>

*Valuation of Option Grants*

At various dates during the year ended December 31, 1999, the Company granted a total of 710,408 options to employees at exercise prices below the estimated fair market value at the dates of grant. The Company recorded compensation expense of \$42,000 for the year ended December 31, 1999 resulting in a remaining deferred compensation balance of \$761,000 at December 31, 1999.

The Company also granted a total of 1,324,484 options at exercise prices below the estimated fair market value at the dates of grant for the six months ended June 30, 2000. The total expense associated with these options was \$6,942,000 which will be amortized over the option vesting period of four years.

Had compensation cost for the Company's stock-based compensation plans been determined based on the fair market value at the grant dates for the awards under SFAS No. 123, the Company's historical net loss and net loss per share would not have changed significantly from the amounts reported based upon the fact that a charge was recorded for options whose exercise price was below the deemed fair market value of the

**ADVANCED SWITCHING COMMUNICATIONS, INC.**  
**NOTES TO FINANCIAL STATEMENTS — (Continued)**

options at the grant date. In addition, all other options granted were at prices in excess of the deemed fair market value at the grant date.

The Company calculated the fair value of each option grant on the date of grant using the Black-Scholes pricing model with the following weighted average assumptions:

	Year Ended December 31, 1998	Year Ended December 31, 1999
Risk free interest rate .....	5.33%	5.76%
Dividend yield .....	—	—
Expected volatility .....	—	—
Expected life .....	5	5

The weighted average fair value at date of grant for options granted during the years ended December 31, 1998 and 1999 was \$0.05, and \$0.27 per share, respectively.

**10. Employee Benefit Plan**

The Company sponsors a 401(k) defined contribution profit sharing plan covering substantially all employees. Employees can contribute up to 15% (subject to statutory limitations) of their total compensation. Profit sharing contributions made by the Company are discretionary and are determined annually by the Board of Directors. Employer contributions, if any, vest to the employees according to a schedule entitling full vesting after four years. There have been no Company contributions to the plan since inception.

**11. Loans from Executive Officers and Stockholders**

Between October 7, 1997 and September 7, 1999, the Company borrowed an aggregate of approximately \$11.4 million from certain executive officers and stockholders. Each of these loans was evidenced by an interest-bearing promissory note and was ultimately paid in full or converted into shares of our convertible preferred stock, as set forth in the table below.

Loans			Conversion into Preferred Stock		
Date	Amount	Int. Rate	Date	Class	Shares
10/7/97	\$ 107,143	6.5%	6/26/98	A	428
12/5/97	25,000	6.5	6/26/98	A	100
12/5/97(1)	12,500	6.5	—	—	—
2/6/98	250,000	6.5	6/26/98	A	1,000
3/9/98	1,750,000	6.5	6/26/98	A	7,000
6/11/98	250,000	6.5	6/26/98	A	1,000
4/20/99	1,000,000	5.0	—(2)	—	—
4/20/99	3,000,000	5.0	6/30/99	C	1,106,332
9/7/99	2,500,000	5.0	9/10/99	D	292,412
9/7/99	2,500,000	5.0	9/10/99	D	292,412

(1) The Company repaid this loan in full together with accrued interest on July 7, 1998.

(2) This promissory note was cancelled and the principal amount was included in the first \$2,500,000 loan made to the Company on September 7, 1999.

**12. Business Segment and Geographic Area Information**

The Company operates in one industry segment, the development of next-generation broadband access platforms. There were no sales to any individual country outside the United States where such sales accounted for 10% or more of total revenue for all periods presented. For the year ended December 31, 1999, total sales to customers within the United States were \$3,848,000 and total sales to international customers were \$430,000.

