## UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

#### FORM 10-K

Annual Report Pursuant To Section 13 Or 15(d) Of The Securities Exchange Act of 1934

For the fiscal year ended December 31, 2000

Commission file number 000-21129

AWARE, INC.

(Exact Name of Registrant as Specified in Its Charter)

Massachusetts (State or Other Jurisdiction of Incorporation or Organization) 04-2911026 (I.R.S. Employer Identification No.)

40 Middlesex Turnpike, Bedford, Massachusetts 01730 (Address of Principal Executive Offices) (Zip Code)

(781) 276-4000

(Registrant's Telephone Number, Including Area Code)

Securities registered pursuant to Section 12(b) of the Act: None
Securities registered pursuant to
Section 12(g) of the Act:
Common Stock, par value \$.01 per share
(Title of class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES |X| NO |\_|

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. |X|

The aggregate market value of the voting stock held by non-affiliates of the registrant as of March 12, 2001, based on the closing price of the Common Stock on March 12, 2001 as reported on the Nasdaq National Market, was approximately \$206,972,301.

The number of shares outstanding of the registrant's common stock as of March 12, 2001 was 22,618,309.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement to be delivered to shareholders in connection with the registrant's Annual Meeting of Shareholders to be held on May 24, 2001 are incorporated by reference into Part III of this Annual Report on Form 10-K.

## AWARE, INC. FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2000

## TABLE OF CONTENTS

## PART I

Item 1. Item 2. Item 3. Item 4.	Description of the Business Properties Legal Proceedings Submission of Matters to a Vote of Security Holders	16 16 16
item 4.	PART II	10
Item 5.	Market for Registrant's Common Equity and Related	47
Item 6.	Stockholder Matters	17 17
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	18
Item 7 (A).	Quantitative and Qualitative Disclosures About Market Risk	28
Item 8. Item 9.	Consolidated Financial Statements and Supplementary Data Changes in and Disagreements with Accountants on Accounting	29
	and Financial Disclosure	46
	PART III	
Item 10.	Directors and Executive Officers of the Registrant	46
Item 11. Item 12.	Executive Compensation	47

Item 13.	Management Certain Relationships and Related Transactions	47 47
	PART IV	
Item 14.	Exhibits, Financial Statement Schedules, and Reports on Form 8-K	48
Signatures.		49

#### ITEM 1. DESCRIPTION OF THE BUSINESS

## Company Background

We provide Digital Subscriber Line ("DSL") technology to semiconductor and equipment companies that make products to enable simultaneous high-speed data and regular voice transmissions over copper telephone lines. During our first seven years, we were engaged primarily in contract research, specializing in wavelet mathematics, digital compression, and telecommunications, including digital modulation and coding. In 1993, we shifted our business from contract research toward the development and licensing of DSL technology, as well as data and video compression software. DSL technology increases the speed of data communications over conventional copper telephone networks so that telephone companies ("telcos") can use existing copper telephone lines to provide both residential and business customers with simultaneous high-speed data transmission and plain old telephone service. DSL technology enables data communications at speeds much higher than possible through voiceband modems.

In 1996, we complemented our technology licensing activities by offering DSL hardware products. These products demonstrated our technology and served as equipment solutions until more widespread deployment of DSL services began. In 1998, we refocused our business on licensing DSL technology to semiconductor and equipment manufacturers to enable them to manufacture and sell integrated circuits and products incorporating our technology. Although we continue to sell DSL hardware products, our principal business focus is licensing DSL technology to the semiconductor industry.

Our offerings include technology packages for full-rate ADSL and G.lite, both of which have been standardized for global use by the International Telecommunications Union ("ITU"). In 2000, we complemented our core DSL technology packages by adding Voice enabled DSL ("VeDSL(TM)") and Dr. DSL(R). VeDSL is technology that enables the transport of multiple lines of digitized voice over a single twisted pair telephone wire using DSL. Dr. DSL is technology that service providers can use to install DSL service, as well as diagnose and solve DSL service problems.

We are active in setting standards for the DSL industry. We pursue acceptance of our technology by standards bodies, including the American National Standards Institute ("ANSI"), ITU, and DSL Forum, and offer technology packages that are compliant with industry standards.

We also sell software-based compression products, including WSQ by Aware, NistPack by Aware, CJIS Web, JPEG 2000 Codec by Aware, MotionWavelets Video, and SeisPact(R).

Our executive offices are located at 40 Middlesex Turnpike, Bedford, Massachusetts, 01730, our telephone number is (781) 276-4000, and our website is www.aware.com. We were incorporated in Massachusetts in 1986.

## Industry Background

Since the emergence of the Internet in the mid-1990s, businesses and residential consumers have been increasingly demanding high-speed network access in order to take full advantage of the services this new medium has to offer. While high-speed Internet access is the primary application driving customer demand today, new applications such as second line voice services, video, video conferencing, and telecommuting will continue to fuel demand for broadband services in the future. While large businesses have the resources to take advantage of access technologies that leverage the use of fiber optic cable or dedicated T-1 service, the cost and availability of these technologies can be prohibitive to other network users. Without the deployment of improved access technologies, many residential and small business users are not able to take full advantage of the Internet and other data intensive applications that require increased data speeds.

Telephone companies initially responded to these demands by significantly increasing the data transmission speed and capacity of the core infrastructure, or "backbone," that links their central office locations. Improving access

speeds and capacity along the "last mile" or the "local loop" that connects their central office locations with homes and businesses has only recently begun. Consequently, many residential and small business users must still rely on conventional voiceband modems for their Internet access and communication needs. Although the rate at which voiceband modems can transmit data has improved over the past two decades from 2.4 kilobits per second, or Kbps, to 56 Kbps, these speeds are still too slow for some existing and many anticipated data applications. In addition, voiceband modems cannot support simultaneous voice and data services.

Advances in semiconductor integration and digital signal processing have led to the development of a broadband access technology, known as Digital Subscriber Line or DSL, which can transmit data over copper telephone lines significantly faster than voiceband modems by using frequencies higher than those used for voice and voiceband modems. DSL delivers "always on" availability, eliminating the tedious dial-up process associated with voiceband modems. DSL is a point-to-point technology that connects the end user to a telecommunications service provider's central office or to an intermediate hub. DSL equipment is deployed at each end of the copper wire and the transmission speed depends on the length and condition of the existing wire.

The first DSL technology, known as Asymmetric Digital Subscriber Line or full-rate ADSL, was created in the late 1980s and enables data to be transmitted at speeds more than 100 times faster than 56 Kbps voiceband modems. Full-rate ADSL, standardized in 1995 by ANSI as T1.413 and by the ITU in 1999 as G.992.1, permits voice and multi-megabit data traffic to be transmitted simultaneously on the same line. Full-rate ADSL requires that either a voice-data "splitter" be installed by a telephone company technician at the users home or that "microfilters" be installed by end user customers on every telephone in the home. In 1999, the ITU also approved a new global "splitterless" ADSL standard called "G.lite", known as G.992.2. G.lite services are capable of providing data transmission speeds between ten and thirty times faster than those of voiceband modems, while permitting voice and data traffic to be transmitted simultaneously without the need to install splitters or microfilters on every phone in the customer premise.

Both full-rate and G.lite ADSL are primarily designed to serve residential telephone customers, because ADSL offers the simultaneous voice and high-speed data service that this market requires. Other forms of DSL have also been developed to serve small to medium-sized businesses. The primary requirement for this market is symmetric upstream and downstream data rates to support business applications. Some of the forms of DSL that address the symmetric market include High Speed DSL ("HDSL" and "HDSL2"), Symmetric DSL ("SDSL"), and Symmetric High Speed DSL ("SHDSL").

Telephone companies and other service providers began tests and trials of full-rate ADSL technology in the mid 1990s. Commercial deployment of ADSL services began in modest volumes in 1999, and at the end of 1999 service providers had deployed fewer than 400,000 worldwide lines of ADSL. In 2000, the rate of deployment of ADSL services accelerated dramatically, particularly in the United States and South Korea. The DSL market also became more segmented in 2000 as Incumbent Local Exchange Carriers ("ILECS") primarily focused on ADSL service to residential customers, and Competitive Local Exchange Carriers ("CLECS") primarily focused on symmetric service to small and medium-sized businesses. The residential ADSL and symmetric DSL business markets have begun to evolve into distinctly different markets.

## The Residential ADSL Market

According to industry analysts, there were approximately 5.5 million new ADSL subscribers worldwide in 2000. These 5.5 million lines were deployed approximately as follows, 2.0 million in the United States, 2.5 million in South Korea, and 1.0 million lines in the rest of the world. ILECs deployed the overwhelming majority of these lines, and nearly all of these lines were based on full-rate ADSL. Leading U.S. service providers include Bell South, QWest, SBC, and Verizon. Korea Telecom and Hanaro are the leading providers in South Korea; and Deutsche Telekom, France Telecom, British Telecom, New Brunswick Telecom and Bell Canada are some of the leading providers in Europe and Canada.

In 2000, the rapid increase in service demand caused some service providers to experience installation delays and customer service problems. Installation and customer service problems were primarily the result of an insufficient number of service provider technicians and customer service representatives to meet customer demand. Service providers have begun to address these conditions by adding additional employees to staff these positions. The rate

of ADSL deployment is also affected by variations in the proximity of end users to central offices, and the condition of telephone networks. A number of ADSL equipment, semiconductor and technology suppliers are developing solutions aimed at improving diagnostic capabilities to determine the length and condition of telephone lines as well as improving installation times and maintenance of DSL service

Service providers are able to purchase ADSL equipment from a number of telecommunications equipment suppliers. Some of the leading suppliers of central office ADSL equipment include Alcatel Alsthom S.A., Cisco Systems, Inc., ECI Telecom, LTD, Hyundai Corporation, Lucent Technologies, Inc., Nortel Networks Corporation, Orckit Communications Ltd., and Samsung Corporation. Some of the leading customer premises modem suppliers include 3Com Corporation, Alcatel, Efficient Networks Inc., Intel Corporation, and Westell Technology Inc. Telecommunications equipment suppliers are able to purchase ADSL chipsets from a number of semiconductor suppliers. Some of the leading suppliers of ADSL chipsets include Alcatel, Analog Devices Inc., Agere Systems, Inc. (formerly the Lucent Microelectronics Group), Centillium Technology Corporation, Globespan Technologies Inc., ITEX Corporation, and Texas Instruments.

Based on public announcements by ADSL semiconductor manufacturers, approximately 28 to 30 million ADSL chipsets were sold in 2000, which represents more chipsets than were required by new subscribers. We believe this situation is primarily due to (i) an excess of chipset inventory at certain DSLAM manufacturers and (ii) the manner in which service providers build out their central offices with ADSL. Today, most service providers install digital subscriber line access multiplexers ("DSLAMs") when they begin to offer ADSL service out of a central office. Since a single DSLAM is capable of serving many customers, a newly upgraded central office generally has more capacity than actual subscribers to use that capacity. In addition, telcos usually outfit multiple central offices with DSLAMs to make DSL service widely available. Service providers knowingly upgrade their central offices with excess capacity, because it is operationally efficient and economically beneficial given the way DSLAM equipment is configured and sold.

We believe that approximately 65% to 75% of the chipsets sold in 2000 were delivered to DSLAM manufacturers. As of the end of 2000, a large proportion of those chipsets were in DSLAMs that service providers installed to build out their ADSL infrastructure to meet current as well as anticipated demand. We also believe that ADSL silicon shortages in 2000 caused some DSLAM manufacturers to purchase more chipsets than they currently required, and that some portion of those chipsets remained in manufacturers' inventory at the end of 2000. We believe that the other 25% to 35% of the ADSL chipsets were sold to manufacturers of ADSL modems. This number of modem chipsets approximately correlates with the number of new worldwide ADSL subscribers in 2000.

In 1999 and 2000, service providers primarily deployed ADSL using a DSLAM at the central office and a modem at the customer premise. In the future, we believe that existing central office switch and digital loop carrier ("DLC") equipment will be upgraded through the installation of DSL-enabled line cards (these line cards currently support POTS). In addition, we expect that consumer electronics devices, including personal computers, modems and gateway devices (also known as integrated access devices) will be DSL-enabled. When this occurs, consumers will be able to purchase a variety of customer premises devices through traditional consumer electronics retail channels.

We believe that commercial deployment of ADSL technology will continue to grow in 2001 and beyond for the following reasons:

- o Service providers will continue to deploy DSL service in countries where they have already begun to build out their central office infrastructures, such as the U.S. and South Korea;
- Service providers in new countries around the world will begin to build out their central office infrastructures and commence large scale service offerings;
- o Service providers will upgrade existing DLC and switch equipment to support DSL to make DSL available to more subscribers; and
- o The consumer electronics industry will offer DSL-enabled devices that will help fuel the growth of ADSL deployments.

The Symmetric DSL Business Market

The number of potential subscribers in the symmetric DSL business market is significantly smaller than that in the residential ADSL market. The symmetric DSL market is served by CLECs whose primary focus has been to offer less expensive DSL alternatives to ILECs' T-1 service. CLECs have also begun to offer residential ADSL services primarily through Internet Service Providers ("ISPs"). Some of the national U.S. CLEC service providers include Covad Communications Group, Inc., Northpoint Communications Group, Inc., and Rhythms NetConnections Inc. CLECs are able to purchase equipment from suppliers such as Cisco, Copper Mountain Networks, Inc., Lucent, Netopia, Inc., Nokia Corporation, and Paradyne Networks. Inc.

CLECs and some of the equipment manufacturers that supply them have experienced difficult business conditions during the last year. These difficult conditions were primarily the result of:

- capital markets that were unwilling to continue to fund the significant levels of capital required by CLECs to build their networks and support staffs;
- o inability to obtain timely access to customer telephone lines;
- o inability to predict or guarantee data rates to customers;
- o unprofitable business models; and
- o unfavorable regulatory rulings.

The future growth and direction of this market is difficult to predict at the current time.

#### Technology

We are a leading provider of ADSL intellectual property ("IP") for the residential ADSL market. Our principal IP offerings are for: (i) Full-rate ADSL technology, (ii) G.lite technology, (iii) Voice enabled DSL, or VeDSL, technology, (iv) Dr. DSL technology, and (v) DMTflex(TM) technology.

#### Full-Rate ADSL Technology

Full-rate ADSL technology expands the useable bandwidth of copper wire. Typically, full-rate ADSL systems divide a 1.1 megahertz (MHz) bandwidth on copper wire into three segments:

- The 0 to 4 kilohertz (KHz) range, which is used for plain old telephone service ("POTS"),
- o The 26 KHz to 138 KHz range, which is used to transmit data upstream, and
- o The 138 KHz to 1.1 MHz range, which is used to transmit data downstream.

ANSI has published an industry standard (known as T1.413) for full-rate ADSL in the United States. The ITU has approved a nearly identical global industry standard for full-rate ADSL, known as G.992.1. The ANSI and ITU specifications call for operation rates of up to 8 Mbps downstream and up to 640 Kbps upstream when operating over telephone lines at a distance of up to 24,000 feet.

The primary method by which consumers access the Internet today using telephone networks are voiceband, or dial-up, modems. Some of the advantages Full-rate ADSL offers over voiceband modems include:

- o Simultaneous POTS and data traffic over a single telephone line;
- o Significantly higher data rates that enable true high-speed Internet access; and
- o The opportunity for telcos to offer other revenue producing services, such as second line digitized voice and entertainment quality video.

Standard compliant full-rate ADSL uses a modulation technique known as discrete multitone, or DMT. DMT divides the upstream and downstream bands into a collection of smaller frequency ranges of approximately 4 kHz each, called subchannels. During transmission, each 4 kHz subchannel carries a portion of the total data rate. By dividing the transmission bandwidth into a collection of subchannels, DMT is able to adapt to the distinct

characteristics of each telephone line and maximize the data transmission rate. Telephone lines are best suited for transmission of the low frequencies associated with voice traffic (0-4 kHz). The high frequencies that are used for full-rate ADSL transmissions experience distortion and attenuation when sent over telephone lines - the higher the frequency, the more the attenuation. DMT effectively divides the data into a collection of smaller bandwidth transmissions, each of which occupies a smaller frequency range and is optimized to maximize the data throughput in that range. The ANSI and ITU standards have both established DMT as the standard modulation technique for full-rate ADSL.

Full-rate ADSL usually requires the installation of a voice-data splitter at the end user's residence or place of business in order to handle simultaneous data and voice traffic. When a splitter is deployed, a new twisted pair is typically installed inside the customer premise to connect the splitter with the ADSL modem. This has the disadvantage that only one telephone jack (the one connected to the splitter) is an ADSL outlet. Most telcos have deployed full-rate ADSL by substituting splitters with microfilters. Microfilters are devices that users put on every telephone in their home to obviate the need for a splitter installation by the telco. A microfilter approach has the advantage that every existing phone jack in the house is now an ADSL outlet. However, this approach also has the following disadvantages: (i) microfilters on every phone in the home add to the cost of customer premises equipment, and (ii) DSL service is susceptible to service problems when there are changes to the in-home telephone network, such as the addition of phones or answering machines by the consumer.

#### G.lite Technology

G.lite enables simultaneous voice traffic and data traffic without requiring installation of a voice-data splitter and without requiring microfilters on every phone or answering machine. In the absence of any splitter, the frequencies used by the G.lite signal are subjected to numerous voice traffic phenomena. For example, a telephone being picked up results in a change in the characteristics of the frequencies used by G.lite. We have invented, implemented and applied for patents on signal processing techniques that compensate for the effects of this and other related phenomena, while maintaining G.lite data transmissions. These techniques enable "splitterless" and "microfilterless" ADSL service through a signal processing technique known as "fast retrain."

In 1997, the Universal ADSL Working Group was formed by Compaq, Intel, Microsoft and others to promote development of a standard for splitterless DSL. At the urging of this Group, the ITU began development of a global standard G.lite, in late 1997. In October 1998, the ITU determined the G.lite standard, which it renamed G.992.2. G.992.2 is also based upon DMT technology. In June 1999, the ITU approved the G.lite G.992.2 standard

G.lite specifies downstream data transmission rates of up to 1.5 Mbps and upstream data transmission rates of up to 512 Kbps, at distances of up to 24,000 feet. Typically, G.lite systems divide a 550 KHz bandwidth on copper wire into three segments:

- o The 0 to 4 kilohertz (KHz) range is used for POTS,
- o  $\,$  The 26 KHz to 138 KHz range is used to transmit data upstream, and
- o The 138 KHz to 550 KHz range is used to transmit data downstream.

While some telephone companies began trial deployments of G.lite technology over the last few years, G.lite technology has not been deployed in any meaningful way as of the end of 2000. Full-rate ADSL service deployments coupled with consumer-installed microfilters slowed the momentum G.lite technology had built up in 1997 through 1999. We believe that key features contained in G.lite-enabled modems and services will be particularly well suited to serve the residential consumer market. The benefits of G.lite over full-rate ADSL include the potential for faster deployment by telcos, lower installation and equipment costs for consumers, and a more robust and versatile service offering because of the features included in the G.lite standards, including fast-retrain and low power modes. While it is difficult to predict when, we believe that G.lite will be embraced by the consumer electronics industry and that service providers will begin commercial deployments of G.lite services at some point in the future.

Improvements to ADSL are being introduced in emerging standards. We expect that new ADSL standards will be completed within the next twelve to eighteen months that document the changing requirements in the rapidly evolving ADSL market. We believe that the focus of standards bodies will be to:

- o Improve the performance of ADSL, including loop-reach and data rates, so that more homes can be reached with high-speed data service.
- o Improve ADSL protocols for easier to configure rate adaptation.
- o Improve the support of multi-service offerings that bundle high-speed Internet access with other services including channelized voice.

#### Voice enabled DSL Technology

Voice-enabled DSL technology allows service providers to offer toll-quality, second-line voice service to residential telephone consumers. With VeDSL, ADSL delivers high-speed data and POTS as well as multiple lines of digitized voice or dial-up data/fax modems on a single line of copper wire. VeDSL transports voice within the physical layer of a full-rate ADSL or G.Lite link. This approach eliminates the need for packetization of voice traffic over the copper loop into upper layer protocols such as ATM and IP, yielding several advantages crucial to offering a toll-quality residential voice-over-DSL solution. These advantages include the elimination of latency, which degrades the quality of the call, and the elimination of echo cancellation, which lowers the cost of VeDSL solutions.

VeDSL allocates a portion of the total DSL bandwidth to digitized voice, while allocating the remaining bandwidth to other applications, such as web surfing and streaming video. When using Pulse Code Modulation ("PCM") with no compression, each voice channel consumes 64 Kbps of bandwidth in each direction without overhead. With voice compression, bandwidth consumption can be reduced to 32 Kbps per voice line or less. The voice bandwidth can be dynamically allocated, so that when the voice lines are not in use, the bandwidth can be used for data traffic.

VeDSL offers service providers a cost effective means to :

- O Offer residential customers reliable, toll-quality multi-line voice service without the installation of a new wire at the home or new equipment in the central office;
- o Increase voice and data revenue through bundled voice and data services over ADSL; and
- O Use their existing telephone network infrastructure and management systems, while maintaining the flexibility to evolve to a packetized network.

Efforts are underway at the ITU to adopt standards for voice service that employs a physical layer approach, such as VeDSL. The ITU generally refers to such physical layer approaches as "channelized voice." We expect that the ITU will include channelized voice as part of the next ADSL standard that is scheduled to be adopted by 2002.

## Dr. DSL Technology

Dr. DSL is designed to assist service providers with provisioning, monitoring, and maintenance of their DSL services by enabling them to collect important information about their copper loop plant. Dr. DSL also empowers subscribers with tools they can use to assist with provisioning and maintenance. The primary goal of Dr. DSL is to reduce the number of calls subscribers make to customer service representatives, as well as the number of the costly truck rolls technicians make to subscriber locations.

Dr. DSL uses ADSL chipsets in existing ADSL equipment to collect important information about an ADSL line. Central office equipment, such as DSLAMs, DLCs, and test heads, and customer premise equipment, such as ADSL modems, routers and integrated access devices, can be equipped with Dr. DSL. Once equipped, central office equipment can be linked up with customer premise equipment to analyze a line and its environment.

Dr. DSL interprets collected data into useful information, identifying physical characteristics of the phone line, and quantifies the effects of its environment. Dr. DSL can calculate the data rate lost attributable to each source of

interference. This information can then be transmitted to the service provider's network database, or operations support system ("OSS"), where it can be made available to technicians to facilitate provisioning, monitoring, and maintenance of DSL services. The data collected will tell a technician what data rate is being achieved, what problems are degrading service levels, and by how much. This data can be used to make intelligent, informed decisions regarding customer service

Dr. DSL equipped central office equipment can receive commands from the service provider's OSS, run tests on the loop, collect and interpret the data, then send the resulting information back to the OSS, even if it is not connected to a Dr. DSL enabled modem at the customer premises. When Dr. DSL software is present at both ends of a telephone line, the technology can also send commands to the customer modem to collect data about the modem and in-home environment.

Specific Dr. DSL features include loop length measurement, bridged tap measurement, crosstalk disturber detection and management, external disturber detection, and subscriber self installation and in-home diagnostics.

#### DMTflex Technology

As deployment of ADSL services accelerates, service providers are seeking alternatives for reducing the size of central office equipment to ease space constraints. ADSL silicon suppliers have responded with chipsets that are capable of enabling multiple lines, or "ports", of ADSL on a single chipset. These "multi-port" solutions enable equipment manufacturers to build smaller, more concentrated central office equipment.

At the same time, service providers are also seeking ways to offer multiple forms of DSL service from a single DSLAM. Very high speed DSL ("VDSL") is a technology that further expands the achievable data rate on telephone lines by providing data transmission speeds of 20-50 Mbps at distances up to three thousand feet. VDSL provides telephone companies the necessary technology to compete for bundled video, voice and data services over a single twisted pair telephone line. VDSL standardization efforts are underway at ANSI T1E1 as well as the ITU.

DMTflex is designed to enable DSL silicon suppliers to offer a single chipset that operates in any of three modes: (i) multi-port G.lite, (ii) multi-port full rate ADSL or (iii) single-port VDSL. Specifically, DMTflex can enable 16 ports of G.lite, eight ports of full rate ADSL, or one port of VDSL on a single chipset. The flexibility of our solution enables VDSL to come down the cost/volume curve rapidly by capitalizing on ADSL's mass-market success. We believe that DMTflex-enabled VDSL solutions can be offered more cost-effectively than VDSL-only solutions.

## Strategy & Business Model

We license our DSL technology solutions--including full-rate ADSL and G.lite--to semiconductor manufacturers that sell chipsets to companies that manufacture and sell central office and customer premises equipment. We also license our DSL technology directly to equipment manufacturers that incorporate our technology into their own products. Central office equipment manufacturers sell their DSL products to service providers that provide DSL services to end users. Customer premises equipment manufacturers sell their DSL products through service providers or directly to end users. To support our technology licensing activities, we also market our technology to equipment manufacturers and service providers to encourage them to use Aware-based technology in their products or services.

Our strategy is based on the following key elements:

o Serve as Independent Technology Provider. A limited number of technology companies have successfully developed DSL technology, and most of them are affiliated with semiconductor or equipment manufacturers. This presents a significant opportunity for independent providers that are able to supply full-rate ADSL and G.lite technology to chipset manufacturers for DSL equipment markets. We believe that, as the market for DSL broadband access products and services grows, semiconductor manufacturers and other market participants will increasingly rely on an independent source of DSL technology. By

relying on our technology and experience, our licensees can avoid many of the risks of development failure or delay they would have faced in developing their own DSL technology internally.

- Provide Multiple and Flexible Technology Solutions. Numerous silicon solutions will emerge to serve the requirements of the multiple types of equipment that will be deployed to support DSL services. Our DSL technology enables chipset manufacturers to design and manufacture chipsets ranging from fully programmable, such as those based upon digital signal processing chips, to entirely fixed function, such as those based upon application specific integrated circuits. Our solutions include standard compliant DSL technology, and service over DSL technology, such as VeDSL and diagnostic and maintenance Dr. DSL technology. By supplying multiple and flexible technology solutions we intend to participate in the multiple DSL silicon and equipment architectures that are emerging in the ADSL market.
- Leverage Our Own and Our Customers' Strengths. Our strategy is to leverage the technology and engineering expertise we have developed over years of research and development efforts, without having to make significant expenditures to develop the infrastructure required to manufacture and sell DSL chipsets or equipment ourselves.

  Instead, we intend to combine our DSL technological leadership with the complementary technology, manufacturing, sales and marketing, and distribution capabilities of our licensees to create industry leading DSL solutions for the worldwide market. By taking advantage of our customers' strengths, we are able to address a larger market more effectively than we could alone. This enables us to align our success with the success of numerous silicon solutions through numerous customers.
- Influence the Establishment of Industry Standards. We have been and remain actively involved in industry-wide efforts to set DSL technology standards. We took an active role in the international effort to develop the G.lite standard that was approved by the ITU in June 1999. We are currently actively involved in the development of next generation ADSL standards at the ITU. By actively participating in the establishment of industry standards, we are better able to influence development of the standards and to anticipate and identify technological changes affecting the DSL industry. In addition, our focus on standard compliant technology offerings improves the likelihood of interoperability between solutions and global acceptance and proliferation of these offerings.

Aware's Telecommunications Technology and Product Offerings

DSL Technology Offerings & Engineering Services

We develop and license our DSL technology. Our DSL technology expertise, when applied in joint development efforts with our customers, has produced chipsets for full-rate ADSL, G.Lite and multi-mode G.lite/full-rate ADSL. We offer our technology, experience, and expertise to licensees in the following forms:

Patents. We have 13 issued patents and have 33 pending patent applications pertaining to telecommunications and signal processing technology. These patents underlie our technology offerings.

System models and designs. Our system models and designs are blueprints of how to build a DSL chipset. Our system models and designs model the elements of a DSL chipset, including the digital and analog subsections, through the use of software simulations.

ASIC Cores. Application specific integrated circuit ("ASIC") cores are hardware designs that enable our customers to manufacture DSL chips that implement certain subsets of a DSL system. ASIC cores are developed and delivered in synthesizable VHDL and Verilog software.

Run-time software. Run-time software is software that is configured to reside on either digital signal processors or other programmable devices. This software directs chipset operations such as handshake, initialization, tracking or steady state DSL functions.

Engineering services. We offer a variety of engineering services to assist customers with their projects during and after chipset development. Depending on their requirements, our customers can elect to purchase one or more of the following engineering services from us: i) system specification definition, ii) system design, iii) analog front end qualification, iv) hardware and software integration, v) performance optimization, vi) interoperability with other vendors' chipsets, vii) reference designs for one or multiple DSL chipsets on printed circuit boards, and viii) technical support at our customers' customers.

#### DSL Hardware Product Offerings

We develop and sell certain hardware products that are manufactured by third party contract manufacturers. These products are intended to support the development and deployment of chipsets and equipment incorporating our technology. Our DSL hardware products consist of:

DSL Development Systems. The Veritas 992 Development System is designed to help our customers evaluate and build standard-compliant DSL-based products and services. Development systems assist semiconductor and equipment manufacturers with performance and interoperability testing during product development.

DSL Test Systems. The Veritas 2000 and Veritas 4000 Test Systems enable personal computer modem or standalone modem manufacturers to perform functional tests on their products without requiring them to purchase expensive central office equipment. Our test system provides a reliable and cost effective means to efficiently test DSL chipsets and modems during production.

DSL Modules. The AW-918 and AW-930 DSL Transceiver Modules are board-level products that contain all of the digital and analog components required to implement a DSL transceiver. Transceiver modules facilitate rapid integration of DSL technology into lab and field test equipment.

## Compression Software Technology and Products

We also develop and sell data and video compression products. Since 1988, we have developed intellectual property in the field of wavelet transform-based data compression and have obtained several patents in this area. Our wavelet compression technology enables digital image, video and certain types of data to be compressed to between 1% and 10% of its original size. Using wavelet compression, the decompressed data are not bit-for-bit identical to the original data. A risk with this technique is that, as the original data are increasingly compressed, a larger amount of error is introduced into the decompressed data. However, compressed data can be transmitted across networks faster and stored less expensively.

In 1993, we began an effort to produce commercially marketable wavelet image compression software products. We currently offer a variety of software-based compression products, including:

- wSQ by Aware. This product compresses digital fingerprint data for use by law enforcement agencies such as the Federal Bureau of Investigation;
- o Nistpack by Aware. This product is a suite of software development tools that enables law enforcement agencies to generate, view, edit and print ANSI/NIST and FBI compliant fingerprint, mug shot, and demographic data files.
- o CJIS Web. This product is a set of tools for Intranet and Web developers who develop custom Intranet solutions for the viewing of digital fingerprints and mug shot images, scanned documents, and demographic text data.
- O JPEG 2000 Codec by Aware. This product provides a solution for the compression and decompression of images using a high-quality, wavelet-based method defined by the JPEG 2000 standard; and
- o SeisPact. This product is used by companies in the oil and gas industry to store and transmit large amounts of seismic data.

We have also licensed our radiology compression software, which compresses digital radiographs and other types of medical imagery, to an OEM customer for inclusion in their hardware-based products.

Our strategy with respect to customers is to select companies based on development compatibility, market position and the potential for future royalty revenue. The strategic customers that we have publicly announced include the following companies:

Analog Devices, Inc.("ADI"). We began working with ADI in 1993 to develop ADSL chipsets. ADI has licensed our full-rate ADSL, G.lite, and VeDSL technologies. Over the years, we have jointly developed multiple generations of ADI ADSL chipsets that incorporate our technology, including ADI's AD20MSP910, AD20MSP918, AD20MSP930, Eagle and 4-port Copperhead chipsets. ADI has announced that it has a number of customers for its chipsets, including Alcatel (through its Newbridge Networks subsidiary), Cisco, Nortel, Lucent, Intel, Hyundai, ECI Telecom, and Samsung. ADI was the number two supplier of chipsets to the ADSL market in 2000.

Agere Systems, Inc. ("Agere"). Agere was formerly the Lucent Microelectronics Group. We began working with Agere in December 1997. Agere licensed our G.lite technology for its Wildwire chipset. The Wildwire chipset was the first personal computer modem chipset for high-speed Internet access incorporating both G.lite and 56 Kbps technology.

Infineon Technologies AG ("Infineon"). We began working with Infineon, formerly Siemens Semiconductor, in August 1998. Infineon has licensed our full-rate and G.lite technology for chipsets targeted at telephone company central office switches and DLCs. Their central office chipsets bring together our DSL technology and Infineon's digital signal processor, high-performance broadband subscriber line, and converter technologies.

Intel Corporation ("Intel"). We announced our relationship with Intel in October 1999. Intel has licensed our full-rate and G.lite technology for DSL solutions targeted at the residential broadband market.

Legerity, Inc ("Legerity"). We began working with Legerity, formerly Advanced Micro Devices' Communication Products Division, in August 1999. Legerity has licensed our full-rate and G.lite technology for highly integrated, cost-effective central office switch and DLC chipset solutions. Their central office chipset brings together our DSL technology and Legerity's leadership in analog and digital integrated circuits for voice and data communications equipment.

NEC Corporation ("NEC"). We began working with NEC in May 1999. NEC has licensed both our full-rate ADSL and G.lite technology for use in ADSL chipsets for customer premises applications.

Siemens Information and Communications Networks ("ICN") Group. We began working with Siemens ICN in September 1998. We entered into an agreement under which we and Siemens ICN are defining the next-generation architecture for Siemens' DSL-enabled EWSD digital electronic switching system. Siemens' EWSD product is the most widely sold carrier-class switching system in the world.

ST Microelectronics ("ST Micro"). ST Micro licensed our G.lite technology in December 1998 for chipsets targeted at telephone company central office switches.

Sigmatel, Inc. ("Sigmatel"). We began working with SigmaTel in March 2000. SigmaTel has licensed our G.lite ADSL technology for its highly flexible, multi-mode G.lite/V.90 chipset solution. This chipset is designed to be interoperable with both full-rate and G.lite ADSL equipment. This relationship combines SigmaTel's strength in mixed-signal integrated circuits with Aware's ADSL technology for chipsets targeted at the consumer market.

3COM/US Robotics ("3Com"). In March 1997, we licensed our full-rate ADSL technology to 3COM (then US Robotics) for use in 3COM's full-rate ADSL product offerings. 3COM/US Robotics DSL product line includes PCI cards, USB modems and office routers. 3COM/US Robotics is one of the largest sellers of modems in the world.

#### Sales and Marketing

Our principal sales and marketing strategy is to proliferate our DSL technology to semiconductor manufacturers and DSL equipment suppliers that incorporate our technology into their products. Due to the complexity of our technology, our sales people must have a high degree of technical sophistication in order to effectively sell our technology offerings. We believe that decisions involving the selection of our technology are frequently made at senior levels within a prospective customer's organization. Consequently, we rely significantly on presentations by our senior management to key employees at prospective customers. As of December 31, 2000, we had thirteen people in our telecommunications sales and marketing organization.

We sell our software-based compression products primarily through OEMs and systems integrators. As of December 31, 2000, there were two people in our compression software sales organization.

In 2000, we derived approximately 51% of our total revenue from ADI. In 1999, we derived approximately 22%, 12%, 11% and 10% of our total revenue from ADI, Agere, Intel, and Infineon, respectively. In 1998, we derived approximately 29%, 18% and 14% of our total revenue from ADI, Agere, and Siemens, respectively. All revenue in 2000, 1999, and 1998 was derived from unaffiliated customers.

#### Competition

The markets for telecommunications and semiconductor products are intensely competitive. We expect competition to increase in the immediate future due to the growth projected across the DSL industry. We intend to compete through a strategy of offering a comprehensive package of DSL technology to the semiconductor industry. Our success depends primarily on the willingness and ability of:

- o Semiconductor manufacturers to design, build and sell DSL chipsets based on our technology,
- Central office and customer premises equipment manufacturers to buy and use DSL chipsets from our semiconductor licensees,
- Service providers to offer DSL services based on equipment from customers of our licensees, and
- o End users to buy broadband digital services from service providers using equipment that is based on our DSL technology.

As a technology supplier, we face three different kinds of competition and competitors, including:

- Technology Licensing Competition. Semiconductor and equipment manufacturers that develop and sell DSL products may either develop DSL technology internally, acquire DSL technology companies, or license it from third parties. While we know of no other independent companies that license DSL technology, such as Aware, we face intense competition from internal development teams within potential customers. Some of these potential customers are some of the largest semiconductor and equipment companies in the world and may elect to develop DSL chipsets without using our technology. Furthermore, our current customers may choose to abandon joint development projects with us and internally develop DSL chipsets without using our technology.
- o DSL Chipset Competition. Our customers' chipsets compete with chipsets from other vendors of standards-based and non-standards-based DSL chipsets. Some of these vendors include Alcatel, Broadcom Corporation, Centillium, Conexant Systems, Inc., ITEX, Globespan, PCTel Inc., Texas Instruments, Tioga Technologies, Ltd., and Virata Corporation.
- O Network Competition. DSL services offered over copper telephone networks compete with alternative broadband transmission technologies that use other network architectures. The two primary network competitors are cable operators using cable modems over their cable networks, and wireless operators using wireless solutions over their wireless networks.

Many of our current and prospective licensees, as well as chipset competitors that compete with our semiconductor licensees, including Alcatel, Broadcom, Conexant, and Texas Instruments, have significantly greater financial, technological, manufacturing, marketing and personnel resources than we do. We cannot assure you that we will be able to compete successfully or that competitive pressures will not seriously harm our business.

The markets for our wavelet image compression technology are competitive, and are expected to become increasingly so in the near future.

#### Research and Development

We believe that our future success depends on our ability to adapt to the rapidly changing telecommunications environment and to meet the industry's ongoing technology development needs. Our research and development organization is organized into two principal groups.

- Strategic Development Group. This group focuses on commercializing our DSL technology and working with our licensees to integrate that technology into their chipsets. Key developments for this group have included the packaging our IP offerings into C-Models, ASIC cores and reference designs for multiple central office and customer premises equipment silicon architectures.
- Research and Development Group. This group focuses on extending and enhancing our core technology for future telecommunications applications. Key developments for this group have included multi-port reference designs, voice-enabled DSL technology, and Dr. DSL technology.

As of December 31, 2000, we had an engineering staff of 98 employees. We supplemented our staff with 4 contractors as of December 31, 2000. Subject to our ability to hire and retain engineers, we expect that our engineering organization will grow significantly in the future. We intend to engage in more customer development projects and to further develop and enhance our DSL technology.

Research and development expense consists primarily of spending by our Research and Development Group to enhance and extend our technology. During the years ended December 31, 2000, 1999, and 1998, research and development costs charged to operations were \$5.9 million, \$3.6 million, and \$3.9 million, respectively.

## Intellectual Property

We have 13 issued patents and 33 pending patent applications pertaining to telecommunications and signal processing technology. We also have 12 issued patents and 1 pending patent application pertaining to image compression, video compression, audio compression, seismic data compression and optical applications.

Although we have patented certain aspects of our technology, we rely primarily on know-how and trade secrets to protect our intellectual property. We attempt to protect our trade secrets and other proprietary information through agreements with our licensees, suppliers, employees and consultants, and through security measures. Each of our employees is required to sign a nondisclosure and non-competition agreement. Although we intend to protect our rights vigorously, we cannot assure you that these measures will be successful. In addition, the laws of certain countries in which products incorporating our technology may be developed, manufactured or sold may not protect our intellectual property and product rights to the same extent as the laws of the United States.

Our ability to compete may be affected by our ability to protect our intellectual property. We believe, however, that other factors will also be important in maintaining our competitive position as the protection of our existing intellectual property. The rapid pace of technological change in the telecommunications industry, our technical expertise, and our ability to enhance our DSL technology on a timely basis will also play an important role in maintaining our competitive position.

Many participants in the telecommunications industry have an increasing number of patents and have frequently demonstrated a readiness to commence litigation based on allegations of patent and other intellectual property infringement. Third parties may assert exclusive patent, copyright and other intellectual property rights to

technologies that are important to us. Over the last several years, we have received letters from third parties suggesting that we may be obligated to license such intellectual property rights. While we believe our technology offerings do not infringe the intellectual property rights of others, we cannot assure you that they do not.

In addition, we cannot assure you that:

- Third parties will not assert infringement claims against us in the future,
- o These third party assertions will not result in protracted and costly litigation, or
- o We would prevail in any such litigation or be able to license any valid patents from third parties on commercially reasonable terms.

Further, such litigation, regardless of its outcome, could result in substantial costs to us and could cause our management to be distracted. Litigation may also be necessary to enforce our intellectual property rights. Any infringement claim or other litigation against or by us could seriously harm our business.

## Government Regulation

The telecommunications industry, including many of our licensees' customers, is subject to regulation by federal and state agencies, including the Federal Communications Commission, or FCC, and various state public utility and service commissions. While such regulation does not necessarily affect us directly, the effects of these regulations on our customers' customers may, in turn, negatively affect our business. FCC regulatory policies affecting the availability of broadband access services and other terms on which service providers conduct their business may impede our plans for the deployment of our technology.

In February 1996, the Telecommunications Act of 1996 was enacted. A primary factor in passage of the Telecommunications Act was the desire to deregulate and foster competition in the telecommunications markets. While we believe deregulation and increased competition, in general, will be favorable to our operations and business plan, the effect of the Telecommunications Act on the telecommunications industry remains unclear. The FCC could interpret the Telecommunications Act in ways that could slow the rollout of DSL access services, which could seriously harm our business.

In addition, our business may also be affected by the imposition of certain tariffs, duties and other import restrictions on components that our customers obtain from non-domestic suppliers or by the imposition of export restrictions on products sold internationally and incorporating our technology. Internationally, governments of the United Kingdom, Canada, Australia and numerous other countries actively promote and create competition in the telecommunications industry. Changes in current or future laws or regulations, in the U.S. or elsewhere, could seriously harm our business.

## Manufacturing

Sales of hardware products constitute a small portion of our revenue, and we do not intend to produce such products in any material quantity for the foreseeable future. Consequently, we rely on third party contractor manufacturers to assemble and test substantially all of our products. Our internal manufacturing capacity is limited to final test and assembly of certain products. Other than chipsets, which are available from our customers, we believe that other components for our equipment-based products are available from a number of suppliers.

## Employees

At December 31, 2000, we employed 131 people, including 98 in engineering, 15 in sales and marketing, 3 in manufacturing and 15 in finance and administration. Of these employees, 127 were based in Massachusetts, and 4 were based in California. We supplement our regular employees as necessary with temporary and contract personnel. At December 31, 2000, we engaged 4 temporary and contract personnel, primarily working in research and development. None of our employees is represented by a labor union. We consider our employee relations to be good.

We believe that our future success will depend in large part on the service of our technical and senior management personnel and upon our ability to attract and retain highly qualified technical, sales and marketing and managerial personnel. Competition for highly qualified personnel is intense. We cannot assure you that we will be able to retain our key managerial and technical employees or that we will be able to attract and retain additional highly qualified personnel in the future.

## ITEM 2. PROPERTIES

We believe that our existing facilities are adequate for our current needs and that additional space sufficient to meet our needs for the foreseeable future will be available on reasonable terms.

### We currently occupy:

- 72,000 square feet of office space in Bedford, Massachusetts, which serves as our headquarters. This site is used for our research and development, sales and marketing, and administrative activities. We purchased this building in 1997.
- 1,265 square feet of research and development space in Lafayette, California. This facility is currently leased for a two-year term, which expires on August 31, 2001.

#### ITEM 3. LEGAL PROCEEDINGS

From time to time we are involved in litigation incidental to the conduct of our business. We are not party to any lawsuit or proceeding that, in our opinion, is likely to seriously harm our business.

## ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

There were no matters submitted to a vote of security holders during the fourth quarter ended December 31, 2000.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock is the only class of stock we have outstanding, and it trades on the Nasdaq National Market under the symbol AWRE. The following table sets forth the high and the low sales prices as reported on the Nasdaq National Market from January 1, 1999 to December 31, 2000.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2000 High Low	\$67 30 7/16	\$55 24 5/8	\$61 7/16 35	\$39 3/4 16 1/2
1999 High Low	50 7/16 25	87 1/8 37 7/16	61 1/4 27 1/4	49 20 7/8

As of March 12, 2001, we had approximately 160 shareholders of record. This number does not include shareholders from whom shares were held in a "nominee" or "street" name. We have never paid cash dividends on our common stock and we anticipate that we will continue to reinvest any earnings to finance future operations.

We did not sell any equity securities that were not registered under the Securities Act of 1933 during the three months ended December 31, 2000.

#### ITEM 6. SELECTED FINANCIAL DATA

In the table below, we provide you with our selected consolidated financial data. We have prepared this information using our audited financial statements for the years ended December 31, 2000, 1999, 1998, 1997, and 1996. When you read this selected financial data, it is important that you read it along with Management's Discussion and Analysis of Financial Condition and Results of Operations, our historical consolidated financial statements, and the related notes to the financial statements, which can be found in Item 8.

Year ended December 31,	2000	1999	1998	1997	1996
		(in thousand:	s, except per sha	re data)	
Statements of Operations Data Revenue	\$30,667 9,490	\$20,527 3,321	\$ 11,796 (3,951)	\$ 6,198 (6,157)	\$ 5,301 (538)
accounting principle (1)	(1,618) 13,414	4,898	(2,249)	(4,448)	259
Net income (loss) per share - basic Net income (loss) per share - diluted	\$ 0.60 \$ 0.56	\$ 0.23 \$ 0.21	(\$0.11) (\$0.11)	(\$0.23) (\$0.23)	\$ 0.02 \$ 0.01
Balance Sheet Data					
Cash and short-term investments	\$57,503	\$36,265	\$ 26,567	\$26,104	\$36,719
Working capital	67,146	41,348	28,813	26,774	38,280
Total assets	81,450	54,482	40,162	39,281	40,123
Total liabilities	3,117	1,514	1,028	1,661	676
Total stockholders' equity	78, 333	52,968	39, 133	37,618	39,446

(1) Effective January 1, 2000, the Company adopted Securities and Exchange Commission Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements ("SAB 101") and recorded the impact in fiscal year 2000. In 1999, the pro forma effect of retroactive application of SAB 101 would have resulted in net income of \$3.280 million and net income per share, basic and diluted, of \$0.15 and \$0.14, respectively. There was no pro forma effect on 1998, 1997, and 1996.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### RESULTS OF OPERATIONS

The following table sets forth, for the years indicated, certain line items from our consolidated statements of operations stated as a percentage of total revenue:

	Year ended December 31,		
	2000	1999	1998
Revenue:			
Product sales	15%	27%	26%
Contract revenue	40	52	70
Royalties		21	
Total revenue	100		
Costs and expenses:			
Cost of product sales	3	7	12
Cost of contract revenue	29	34	46
Research and development	19	18 12	33 24
Selling and marketing	8 10	13	24 19
delier at and administrative	10	13	19
Total costs and expenses	69	84	134
Income (loss) from operations	31	16	(34)
Other income			4
Interest income	9	8	11
Trans (lass) before broofit from income house and			
Income (loss) before benefit from income taxes and cumulative effect of change in accounting principle	40	24	(10)
Benefit from income taxes			
benefit from theome taxes	-		
Income (loss) before cumulative effect of change in accounting principle	49	24	(19)
Cumulative effect of change in accounting principle	(5)		
Net income (loss)		24%	
	=======	=======	======

## Product Sales

Product sales consist primarily of revenue from the sale of DSL equipment and compression software products. The products that comprise DSL equipment sales are primarily test and development systems and modems.

Product sales decreased 16% from \$5.5 million in 1999 to \$4.7 million in 2000. As a percentage of total revenue, product sales decreased from 27% in 1999 to 15% in 2000. The dollar decrease was primarily due to lower revenue from the sale of modems. Modem revenue was lower because we have almost completely phased out the

development and sale of our x200 Access Router. We anticipate that sales of x200 products will be minimal in future periods.

Product sales increased 79% from \$3.1 million in 1998 to \$5.5 million in 1999. As a percentage of total revenue, product sales increased from 26% in 1998 to 27% in 1999. The dollar increase was primarily due to a substantial increase in the sale of DSL test and development systems in 1999. DSL test and development system revenue increased primarily because: (i) more customers are developing chipsets and equipment using our DSL technology, and consequently they purchased more of these systems in 1999, and (ii) we made new products available in 1999, including our Veritas 992 and Veritas 2000 products. The increase in product sales was also, to a lesser degree, due to higher revenue from the sale of compression software products. Compression software revenue increased primarily because our OEM customers shipped more of our software in their products in 1999.

#### Contract Revenue

Contract revenue consists primarily of license and engineering service fees that we receive under agreements with our customers to develop ADSL chipsets. Contract revenue in 1999 and 1998 also includes revenue from U.S. government research contracts.

Contract revenue increased 15% from \$10.6 million in 1999 to \$12.2 million in 2000. As a percentage of total revenue, contract revenue decreased from 52% in 1999 to 40% in 2000. The dollar increase is primarily due to new chipset development projects with existing and new semiconductor customers. Continued growth of the DSL market encouraged existing and new customers to seek our technology and engineering assistance for their DSL chipset products, which caused contract revenue to increase in 2000.

Contract revenue increased 28% from \$8.3 million in 1998 to \$10.6 million in 1999. As a percentage of total revenue, contract revenue decreased from 70% in 1998 to 52% in 1999. The dollar increase was primarily due to a substantial increase in contract revenue from our semiconductor manufacturer customers. Higher contract revenue from semiconductor customers was mostly due to the addition of new projects with existing and new customers. We believe the growing DSL market opportunity encouraged more semiconductor companies to enter the market in 1999. The dollar increase in DSL contract revenue was partially offset by a decline in U.S. government research revenue. We completed our last U.S. government research project in the first quarter of 1999. We anticipate that revenue from these government contracts will not continue in future periods.

## Royalties

Royalties consist of royalty payments that we receive under licensing agreements. We receive royalties from customers for the right to use our technology in their chipsets or solutions.

Royalties increased 215% from \$4.4 million in 1999 to \$13.9 million in 2000. As a percentage of total revenue, royalties increased from 21% in 1999 to 45% in 2000. The increase in royalties was primarily due to a sharp increase in ADSL chipset sales in 2000 in general and the success of ADI, our largest customer, in particular. We believe that this increase was driven by growing deployments of ADSL service primarily in the U.S. and Korea. We do not expect royalties in 2001 to grow at the rate at which they grew in 2000.

Royalties increased from \$418,000 in 1998 to \$4.4 million in 1999. As a percentage of total revenue, royalties increased from 4% in 1998 to 21% in 1999. We believe that the increase in royalties was primarily due to growing deployments of ADSL services by the telecommunications industry in general, and of deployments using our technology in particular.

## Cost of Product Sales

Cost of product sales consists primarily of the cost of equipment sales as the cost of compression software sales is minimal. Cost of product sales decreased 39% from \$1.4 million in 1999 to \$0.8 million in 2000. As a percentage of product sales, cost of product sales decreased from 25% in 1999 to 18% in 2000. The decrease in cost of product

sales dollars and the improvement in product margins is primarily due to a lower percentage of lower margin x200 modem sales in 2000.

Cost of product sales decreased 2% from \$1.39 million in 1998 to \$1.36 million in 1999. As a percentage of product sales, cost of product sales decreased from 45% in 1998 to 25% in 1999. The percentage of compression software revenue in the product sales mix was approximately the same in 1999 and 1998. Therefore, the improvement in the gross margin is primarily due to lower cost of sales on equipment. Cost of product sales for equipment only as a percentage of equipment sales was 78% in 1998 as compared to 41% in 1999. The improvement in equipment gross margins is primarily due to a larger percentage of higher margin test and development system revenue in the sales mix, and a reduction of obsolescence provisions in 1999.

#### Cost of Contract Revenue

Cost of contract revenue consists primarily of salaries for engineers and expenses for consultants, recruiting, supplies, equipment, depreciation and facilities associated with customer development projects. Cost of contract revenue increased 25% from \$7.1 million in 1999 to \$8.8 million in 2000. As a percentage of contract revenue, cost of contract revenue increased from 67% in 1999 to 72% in 2000. The dollar increase was primarily due to new chipset development projects with existing and new semiconductor customers, and the nature of the customer projects we performed in 2000. We have engaged in a more diverse collection of projects in 2000 involving ASIC (application specific integrated circuit) core developments, specific DSP-based code developments, and developments involving the combination of ASIC cores and DSP code. These projects tend to have greater development costs associated with them.

Cost of contract revenue increased 30% from \$5.4 million in 1998 to \$7.1 million in 1999. As a percentage of contract revenue, cost of contract revenue increased from 66% in 1998 to 67% in 1999. The dollar increase is primarily due to the addition of new projects with existing and new semiconductor and equipment customers. Increased spending related to telecommunications projects was partially offset by almost no spending on U.S. government research projects in 1999

## Research and Development Expense

Research and development expense consists primarily of salaries for engineers and expenses for consultants, recruiting, supplies, equipment, depreciation and facilities related to engineering projects to enhance and extend our telecommunications intellectual property offerings, and our compression software technology. Research and development expense increased 63% from \$3.6 million in 1999 to \$5.9 million in 2000. As a percentage of total revenue, research and development expense increased from 18% in 1999 to 19% in 2000. The dollar increase in spending was primarily due to increased spending on non-customer-specific research and development projects, including voice enabled DSL, Dr. DSL and DMTflex. Higher spending on these projects was partially offset by lower spending on our x200 modem product.

Research and development expense decreased 7% from \$3.9 million in 1998 to \$3.6 million in 1999. As a percentage of total revenue, research and development expense decreased from 33% in 1998 to 18% in 1999. The dollar decrease in spending was primarily due to lower spending on our x200 modem product and our Discrete Wavelet Multitone ("DWMT") chipset project. Lower spending on these projects was partially offset by higher spending on our Veritas test and development products and compression software research and development.

## Selling and Marketing Expense

Selling and marketing expense consists primarily of salaries for sales and marketing personnel, travel, advertising and promotion, recruiting, and facilities expense. Sales and marketing expense decreased 2% from \$2.6 million in 1999 to \$2.5 million in 2000. As a percentage of total revenue, sales and marketing expense decreased from 12% in 1999 to 8% in 2000. The dollar decrease was primarily due to lower spending on public relations.

Sales and marketing expense decreased 9% from \$2.8 million in 1998 to \$2.6 million in 1999. As a percentage of total revenue, sales and marketing expense decreased from 24% in 1998 to 12% in 1999. The dollar decrease was primarily due to lower sales and marketing costs because of the reduction in focus on end-user modem sales. Prior to the second quarter of 1998, we were pursuing a technology licensing strategy as well as an end-user modem distribution and sales strategy. Sales and marketing expenses in 1998 included some non-recurring costs that we incurred to better align the sales organization to execute on a licensing strategy.

#### General and Administrative Expense

General and administrative expense consists primarily of salaries for administrative personnel, facilities costs, and public company, bad debt, legal, and audit expenses. General and administrative expense increased 20% from \$2.6 million in 1999 to \$3.1 million in 2000. As a percentage of total revenue, general and administrative expense decreased from 13% in 1999 to 10% in 2000. The dollar increase is primarily due to higher administration, investor relations and bad debt expenses.

General and administrative expense increased 17% from \$2.2 million in 1998 to \$2.6 million in 1999. As a percentage of total revenue, general and administrative expense decreased from 19% in 1998 to 13% in 1999. The dollar increase is primarily due to higher public company expenses and additions to our legal and administrative staffs.

## Other Income

Other income consists of rental income from real estate leases for space in our headquarters building, which terminated in the first quarter of 1999. Other income decreased from \$405,000 in 1998 to \$18,000 in 1999 to zero in 2000. The dollar decrease is due to the termination of the leases in January 1999, and we anticipate that we will not have any more rental income in the future.

#### Interest Income

Interest income increased 81% from \$1.6 million in 1999 to \$2.8 million in 2000. The dollar increase is primarily due to higher cash balances. Higher cash balances were due to positive cash flows from operations and stock option exercises during 2000.

Interest income increased 20% from \$1.3 million in 1998 to \$1.6 million in 1999. The dollar increase is primarily due to higher cash balances. Higher cash balances were due to positive cash flows from operations and stock option exercises during 1999.

## Income Taxes

We made no provision for income taxes in 1998 or 1999 as our historical net losses have resulted in tax loss carryforwards that we used to offset any tax expense. In the fourth quarter of 2000, we determined that based on our continuing profitability, it was more likely than not that we will realize a portion of our tax assets. Accordingly, we recorded a deferred tax asset of \$7.1 million at December 31, 2000, which consisted of an income statement tax benefit of \$2.7 million for tax loss carryforwards and research and development credits, and an adjustment to additional paid-in capital of \$4.4 million for stock option related deductions. The tax assets as of December 31, 2000 for which we have recorded a valuation allowance are attributable to the exercise of stock options and the tax benefit of these items will be credited to additional paid-in capital, if realized. Consequently, to the extent we are profitable in future periods, we anticipate that we will record income tax expense.

At December 31, 2000, we had federal net operating loss carryforwards of approximately \$55.9 million, which begin to expire in 2003, and federal research and development credit carryforwards of approximately \$5.5 million, which begin to expire in 2003. At December 31, 2000, we also had available state net operating loss carryforwards of approximately \$50.2 million, which begin to expire in 2001, and state research and development and investment tax credit carryforwards of approximately \$3.6 million, which begin to expire in 2006.

Effective January 1, 2000 we changed our method of revenue recognition in accordance with Securities and Exchange Commission Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Previously, we recognized contract revenue under multiple element agreements upon completion of contract milestones or upon transfer of intellectual property. Under the accounting method we adopted retroactive to January 1, 2000, we now recognize contract revenue under multiple element agreements by recording total license and engineering fees for the entire contract on a straight-line basis over the estimated contract performance period, subject to the limitation that cumulative revenue through the end of any period may not exceed cumulative contract payments through that same period. The cumulative effect of the change on prior years resulted in a charge to income of \$1.6 million for the year ended December 31, 2000. For the year ended December 31, 2000, we recognized \$0.7 million in revenue that was included in the cumulative effect adjustment as of January 1, 2000.

## LIQUIDITY AND CAPITAL RESOURCES

Since our inception in March 1986, we have financed our activities primarily through the sale of stock. In the years ended December 31, 2000, 1999 and 1998, we received net proceeds from the exercise of employee stock options of \$7.6 million, \$8.9 million and \$3.8 million, respectively. Our operating activities provided net cash of \$14.5 million and \$4.3 million in the years ended December 31, 2000 and 1999, respectively. Cash provided by operations during 2000 and 1999 was primarily due to our profitability. Operating activities used net cash of \$2.3 million in the year ended December 31, 1998, which was primarily due to operating losses and working capital requirements.

In the years ended December 31, 2000, 1999, and 1998, we made capital expenditures of \$1.3 million, \$3.1 million, and \$1.0 million, respectively. Capital expenditures in all three years consist of spending on computer hardware and software, laboratory equipment, and furniture used principally in engineering activities. Capital spending in 1999 also included the renovation of the third floor of our headquarters building for \$1.5 million. We have no material commitments for capital expenditures.

At December 31, 2000, we had cash, cash equivalents and short-term investments of \$57.5 million. We believe that our cash, cash equivalents and short-term investments will be sufficient to fund our operations for at least the next twelve months.

## FACTORS THAT MAY AFFECT FUTURE RESULTS

Some of the information in this Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. You can identify these statements by forward-looking words such as "may," "will," "expect," "anticipate," "believe," "estimate," "continue" and similar words. You should read statements that contain these words carefully because they: (1) discuss our future expectations; (2) contain projections of our future operating results or financial condition; or (3) state other "forward-looking" information. However, we may not be able to predict future events accurately. The risk factors listed in this section, as well as any cautionary language in this Form 10-K, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. You should be aware that the occurrence of any of the events described in these risk factors and elsewhere in this Form 10-K could materially and adversely affect our business.

Our Quarterly Results Are Unpredictable and May Fluctuate Significantly

Our quarterly revenue and operating results are difficult to predict and may fluctuate significantly from quarter to quarter. If our quarterly revenue or operating results fall below the expectations of investors or public market analysts, the price of our common stock could fall significantly.

Many of our expenses, such as employee compensation and facilities costs, are relatively fixed. Moreover, our expense levels are based, in part, on our expectations regarding future revenue increases. As a result, any shortfalls in revenue in relation to our expectations could cause significant changes in our operating results from quarter to quarter and could result in quarterly losses.

Other factors, many of which are outside our control, also could cause variations in our quarterly revenue and operating results. Some of these factors are:

- o The rate of market acceptance of DSL broadband access, generally, and of our ADSL technologies in particular;
- o Demand for our licensees' chipsets and products that incorporate our technology;
- Development by us or our competitors of enhanced or alternative high-speed network access technologies;
- o The extent and timing of new license transactions;
- o Regulatory developments; and
- o The timing and related costs of any acquisitions.

As a result of these factors, we believe that period-to-period comparisons of our revenue levels and operating results are not necessarily meaningful. You should not rely on our quarterly revenue and operating results to predict our future performance.

We Have a Unique Business Model

The success of our business model depends upon i) our ability to license our technology to semiconductor and equipment companies, and ii) our customers' willingness and ability to sell products that incorporate our technology so that we may receive significant royalties that are consistent with our plans and expectations.

Obtaining suitable licensees for our technology is difficult because of the following features of our strategy:

- o We typically undergo a lengthy and expensive process of building a relationship with a potential licensee before entering into an agreement;
- o We must persuade semiconductor and equipment manufacturers with significant resources to rely on us for critical technology on an ongoing basis rather than trying to develop similar technology internally; and
- We must persuade potential licensees to bear development costs associated with our technology applications and to make the necessary investment to successfully produce chipsets and products using our technology.

Moreover, the success of our business model also depends on the receipt of royalties from licensees. Royalties from our licensees are often based on the selling prices of our licensees' chipsets and products, over which we have little or no control. We also have little or no control over our licensees' promotional and marketing efforts. Our licensees are not obligated to use our technology, and generally are not required to pay us royalties unless they do use our technology. They are not prohibited from competing against us.

Our business could be seriously harmed if:

- o We cannot obtain suitable licensees;
- Our licensees fail to achieve significant sales of chipsets or products incorporating our technology; or
- o We otherwise fail to implement our business strategy successfully.

We Depend Substantially on a Limited Number of Licensees

There are a relatively limited number of semiconductor and equipment companies to which we can license our DSL technology in a manner consistent with our business model. If we fail to maintain relationships with our current licensees or fail to establish a sufficient number of new licensee relationships, our business could be seriously harmed. Also, we cannot assure you that our prospective customers will not use their superior size and bargaining power to demand license terms that are unfavorable to us.

We Derive a Significant Amount of Revenue from One Customer

In 2000, we derived 51% of our total revenue from Analog Devices, Inc. ADI was the first customer to license ADSL technology from us in 1993 and their chipsets are the most mature implementations of our technology in the market. Our royalty revenues to date have been primarily due to sales of ADI chipsets that use our ADSL technology. While we expect to see an increase in the number of our customers with ADSL chipsets on the market, our revenue in the near term is highly dependent upon ADI's ability to maintain their market share and pricing. To the extent that ADI is unable to maintain market share or experiences significant price erosion in its ADSL chipsets, our revenue could decrease.

Our Success Requires Acceptance of Our DSL Technology By a Variety of Market Participants

Due to our business strategy, our success is dependent on our ability to generate significant royalties from our licensing arrangements with semiconductor manufacturers. Our ability to generate significant royalties is materially affected by the acceptance of high-speed access over telephone lines in general, and our DSL technology in particular by equipment companies, service providers, and end users.

Equipment Companies Must Incorporate Our DSL Technology

Equipment companies, particularly those that develop and market high-volume business and consumer products such as central office line cards, modems and personal computers, must purchase chipsets containing our DSL technology from our licensees for us to be successful. There are other solutions available for equipment companies seeking to offer high-speed network access products. Therefore, we face the risk that equipment manufacturers will choose chipset solutions that do not incorporate our technology. Generally, our ability to influence their decision whether to adopt our technology is limited.

We also face the risk that equipment companies that elect to incorporate our DSL technology into their products will not compete successfully against other equipment companies. Many factors beyond our control could influence the success or failure of a particular equipment company that adopts our technology, including:

- o Competition from other businesses in the same industry;
- o Market acceptance of its products;
- o Its engineering, sales and marketing, and management capabilities;
- Technical challenges of developing its products unrelated to our technology; and
- o Its financial and other resources.

Therefore, even if equipment companies incorporate our DSL technology into their products, we cannot be sure that their products will achieve commercial acceptance or result in significant royalties to us.

Service Providers Must Initiate Substantial Deployments of DSL Services Based on Our Technology

The success of our business strategy depends upon whether telecommunications service providers deploy DSL technologies and upon the timing of that deployment. Factors that will affect such deployment include:

The development of a viable business model for DSL services, including the capability to market, sell, install and maintain DSL services:

- Cost constraints, such as installation costs and space and power requirements at the telecommunications service provider's central office;
- o Lack of interoperability of DSL equipment that is supplied by different manufacturers;
- o Evolving industry standards for DSL technologies; and
- o Government regulation.

If service providers do not deploy services based on DSL technology, our business will be seriously harmed. Even if service providers deploy DSL technologies, we cannot be sure that they will deploy services based on our DSL technology.

End Users Must Purchase Services That Incorporate Our Technology

Even if numerous service providers adopt our DSL technology, our success ultimately will depend on acceptance of services incorporating our DSL technology by end users, such as access service subscribers and users of personal computers and modems. DSL services compete with a variety of different high-speed Internet connectivity technologies, including cable modems, satellite, and other wireless technologies. Many of these technologies will compete effectively with DSL services. If any technology competing with DSL technology is more reliable, faster, less expensive, reaches more customers, or has other advantages over DSL technology, then the demand for DSL services, and therefore our technology may decrease.

Our Intellectual Property is Subject to Limited Protection

Because we are a technology provider, our ability to protect our intellectual property and to operate without infringing the intellectual property rights of others is critical to our success. We regard our technology as proprietary, and we have a number of patents and pending patent applications. We also rely on a combination of trade secrets, copyright and trademark law and non-disclosure agreements to protect our unpatented intellectual property. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use our technology without authorization.

As part of our licensing arrangements, we typically work closely with our semiconductor and equipment manufacturer licensees, many of whom are also our potential competitors, and provide them with proprietary know-how necessary for their development of customized chipsets based on our DSL technology. Although our license agreements contain non-disclosure provisions and other terms protecting our proprietary know-how and technology rights, it is possible that, despite these precautions, some of our licensees might obtain from us proprietary information that they could use to compete with us in the marketplace. Although we intend to defend our intellectual property as necessary, we cannot be sure that the steps we have taken will be adequate to prevent misappropriation.

In the future, we may choose to bring legal action to enforce our intellectual property rights. Any such litigation could be costly and time-consuming for us, even if we were to prevail. Moreover, even if we are successful in protecting our proprietary information, we cannot be sure that our competitors will not independently develop technologies substantially equivalent or superior to our technology. The misappropriation of our technology or the development of competitive technology could seriously harm our business.

Our technology may infringe the intellectual property rights of others. A large and increasing number of participants in the telecommunications industry have applied for or obtained patents. Some of these patent holders have demonstrated a readiness to commence litigation based on allegations of patent and other intellectual property infringement. Third parties may assert exclusive patent, copyright and other intellectual property rights to technologies that are important to our business. From time to time, we have received claims from other companies that our technology infringes their patent rights. While we believe our technology offerings do not infringe the intellectual property of others, we cannot be sure. Intellectual property rights can be uncertain and can involve complex legal and factual questions. We may be unknowingly infringing the proprietary rights of others, which could result in significant liability for us. If we were found to have infringed any third party's patents, then we could be subject to substantial damages and an injunction preventing us from conducting our business.

Our Business is Subject to Rapid Technological Change

The telecommunications industry in general, and the market for high-speed network access technologies in particular, are characterized by rapid technological change, with new generations of products being introduced regularly and with ongoing evolutionary improvements. We expect to depend on our DSL technology for a substantial portion of our revenue for the foreseeable future. Therefore, we face risks that others could introduce competing technology that renders our DSL technology less desirable or obsolete. Also, the announcement of new technologies could cause our licensees or their customers to delay or defer entering into arrangements for the use of our existing technology. Either of these events could seriously harm our business.

We expect that our business will depend to a significant extent on our ability to introduce enhancements and new generations of our DSL technology as well as new technologies that keep pace with other changes in the telecommunications industry and that achieve rapid market acceptance. We must continually devote significant engineering resources to achieving technical innovations. These innovations are complex and require long development cycles. Moreover, we may have to make substantial investments in technological innovations before we can determine their commercial viability. We may lack sufficient financial resources to fund future development. Also, our licensees may decide not to share certain research and development costs with us. Revenue from technological innovations, even if successfully developed, may not be sufficient to recoup the costs of development.

One element of our business strategy is to assume the risks of technology development failure while reducing such risks for our licensees. In the past, we have spent significant amounts on development projects that did not produce any marketable technologies or products, and we expect that to occur again in the future.

We Face Intense Competition From a Wide Range of Manufacturers and Vendors

The markets for telecommunications and semiconductor products are intensely competitive. We expect competition to increase in the immediate future, because of the rapid growth projected across the DSL industry. Because of our strategy, we face three different kinds of competition and competitors, including:

Technology Licensing Competition. Semiconductor and equipment manufacturers that develop and sell DSL products may either develop DSL technology internally or license it from third parties. While we know of no other independent companies that license DSL technology, such as Aware, we face intense competition from internal development teams within potential customers. Some of these potential customers are some of the largest semiconductor and equipment companies in the world. Furthermore, our current customers may choose to abandon joint development projects with us and develop DSL solutions without using our technology.

DSL Chipset Competition. Our customers' chipsets compete with chipsets from other vendors of standards-based and non-standards-based DSL chipsets. Some of these vendors include Alcatel, Broadcom, Centillium, Conexant, ITEX, Globespan, PCTel, TI, Tioga, and Virata.

Network Competition. DSL services offered over copper telephone networks compete with alternative broadband transmission technologies that use other network architectures, such as cable modems and wireless solutions.

Many of our current and prospective licensees, as well as chipset competitors that compete with our semiconductor licensees, including Alcatel, Broadcom, Conexant, and TI, have significantly greater financial, technological, manufacturing, marketing and personnel resources than we do. We cannot assure you that we will be able to compete successfully or that competitive pressures will not seriously harm our business.

We Require Additional Highly-Qualified Engineering Personnel

Our future success will depend significantly on our ability to attract, motivate and retain additional highly qualified engineering personnel. Competition for qualified engineers is intense and there are a limited number of available

persons with the necessary knowledge and experience in DSL, chip design and related technologies. Finding, training and integrating additional qualified personnel is likely to be difficult and expensive, and we may be unable to do so successfully. In the past, we were not able to hire all of the engineers that we wanted to hire. If we are unable to hire and retain a sufficient number of engineers, our business could be seriously harmed.

In addition, stock options have been an important element of our program to fairly compensate and retain highly qualified employees. The recent decline of telecommunications technology stocks in general and our stock in particular has left the vast majority of our employees with stock options that are significantly out of the money. If the price of our stock does not increase or if we do not otherwise address this situation through the grant of new stock options or additional compensation, we may have difficulty retaining employees, which could seriously harm our business.

## Our Stock Price May Be Volatile

Volatility in our stock price may negatively impact the price you may receive for your shares of common stock and increases the risk that we could be the subject of costly securities litigation. The market price of our common stock could fluctuate substantially based on a variety of factors, including:

- o Quarterly fluctuations in our operating results;
- o Changes in future financial guidance that we may provide to investors and public market analysts;
- o Changes in our relationships with our licensees;
- Announcements of technological innovations or new products by us, our licensees or our competitors;
- o Changes in DSL market growth rates as well as investor perceptions regarding the investment opportunity that companies participating in the DSL industry afford them;
- o Changes in earnings estimates by public market analysts;
- o Key personnel losses;
- o Sales of common stock; and
- Developments or announcements with respect to industry standards, patents or proprietary rights.

In addition, the equity markets have experienced volatility that has particularly affected the market prices of equity securities of many high technology companies and that often has been unrelated or disproportionate to the operating performance of such companies. These broad market fluctuations may adversely affect the market price of our common stock.

## Government Regulation

The extensive regulation of the telecommunications industry by federal, state and foreign regulatory agencies, including the Federal Communications Commission, or FCC, and various state public utility and service commissions, could affect us through the effects of such regulation on our licensees and their customers. In addition, our business may also be affected by the imposition of certain tariffs, duties and other import restrictions on components that our customers obtain from non-domestic suppliers or by the imposition of export restrictions on products sold internationally and incorporating our technology. Changes in current or future laws or regulations, in the United States or elsewhere, could seriously harm affect our business.

#### RECENT ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, (FAS 133), "Accounting for Derivative Instruments and Hedging Activities", which required adoption in periods beginning after June 15, 1999. FAS 133 was subsequently amended by Statement of Financial Accounting Standards No. 137, "Accounting for Derivative Instruments and Hedging Activities - Deferral of the Effective Date of FASB Statement No. 133" and is effective for fiscal years beginning after June 15, 2000, with earlier adoption permitted. The Company will adopt FAS 133 during fiscal 2001, as required. The Company has not historically entered into transactions involving derivative instruments, nor has it hedged any of its business activities, so it does not believe that adoption of FAS 133 will have an effect on its financial statements.

## ITEM 7 (A). QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk relates primarily to our investment portfolio, and the effect that changes in interest rates would have on that portfolio. Our investment portfolio includes:

- O Cash and cash equivalents, which consist of financial instruments with purchased maturities of three months or less; and
- o Short-term investments, which consist of financial instruments that meet the high quality standards specified in our investment policy. This policy dictates that all instruments mature in 18 months or less, and limits the amount of credit exposure to any one issue, issuer, and type of instrument.

We do not use derivative financial instruments for speculative or trading purposes. As of December 31, 2000 and 1999, all of our investments matured in twelve months or less. Due to the short duration of the financial instruments we invest in, we do not expect that an increase in interest rates would result in any material loss to our investment portfolio.

## ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

## Index to Consolidated Financial Statements

The following consolidated financial statements of Aware, Inc. are filed as part of this Report on Form 10-K:

## Consolidated Financial Statements:

	Pag
Report of Independent Accountants	30
Independent Auditors' Report	31
Consolidated Balance Sheets as of December 31, 2000 and 1999 Consolidated Statements of Operations for each of the three	32
years in the period ended December 31, 2000  Consolidated Statements of Cash Flows for each of the	33
three years in the period ended December 31, 2000	34
the three years in the period ended December 31, 2000	35
Notes to Consolidated Financial Statements	36
Financial Statement Schedules:	
	Pag
Schedule II - Valuation and Qualifying Accounts	45

#### REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Shareholders of Aware, Inc.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Aware, Inc. and its subsidiary at December 31, 2000 and 1999, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2000, the Company changed its method of recognizing revenue.

PricewaterhouseCoopers LLP

Boston, Massachusetts January 26, 2001

## INDEPENDENT AUDITORS' REPORT

We have audited the accompanying consolidated statements of operations, stockholders' equity, and cash flows of Aware, Inc. and its subsidiary for the year ended December 31, 1998. Our audit also included the financial statement schedule listed in the Index at Item 8. These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audit.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the results of operations and cash flows of the Company and its subsidiary for the year ended December 31, 1998, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

Deloitte & Touche LLP

Boston, Massachusetts January 26, 1999

## AWARE, INC. CONSOLIDATED BALANCE SHEETS (in thousands, except share and per share data)

	December 31,	
	2000	1999
ASSETS		
Current assets:  Cash and cash equivalents	\$ 51,662 5,841	\$ 35,248 1,017
accounts of \$402 in 2000 and \$175 in 1999)	5,200 167	5,706 122
Deferred tax assets  Prepaid expenses and other assets	7,093 300	769
Total current assets	70,263	42,862
Property and equipment, net	11,187	11,620
Total assets	\$ 81,450 ======	\$ 54,482 ======
LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities:		
Accounts payable Accrued expenses Accrued compensation Accrued professional Deferred revenue	\$ 483 332 664 169 1,469	\$ 788 177 468 81
Total current liabilities	3,117	1,514
Commitments and contingent liabilities (Note 7)		
Stockholders' equity: Preferred stock, \$1.00 par value; 1,000,000 shares authorized,		
none outstanding		
and outstanding, 22,606,277 in 2000 and 21,918,056 in 1999 Additional paid-in capital Retained earnings (accumulated deficit)	226 76,809 1,298	219 64,865 (12,116)
Total stockholders' equity	78,333	52,968
Total liabilities and stockholders' equity	\$ 81,450 ======	\$ 54,482 ======

## AWARE, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (in thousands, except per share data)

	Years ended December 31,			
	2000	1999	1998	
Revenue: Product sales Contract revenue Royalties	\$ 4,655 12,152 13,860	\$ 5,535 10,594 4,398	\$ 3,093 8,285 418	
Total revenue		20,527		
Costs and expenses:     Cost of product sales	831	1,363 7,053 3,636 2,574 2,580	1.394	
Total costs and expenses	21,177	17,206	15,747	
Income (loss) from operations	9,490  2,826	3,321 18 1,559	(3,951) 405 1,297	
Income (loss) before benefit from income taxes and cumulative effect of change in accounting principle	12,316 2,716	4,898 	(2,249)	
Income (loss) before cumulative effect of change in accounting principle		4,898		
Net income (loss)		\$ 4,898 ========		
Basic net income (loss) per share: Income (loss) before cumulative effect of change in accounting principle	(\$ 0.07)  \$ 0.60	\$ 0.23  \$ 0.23	(\$ 0.11)	
Diluted net income (loss) per share:  Income (loss) before cumulative effect of change in accounting principle	\$ 0.63	\$ 0.21 	(\$ 0.11)	
Net income (loss) per share	\$ 0.56	\$ 0.21	(\$ 0.11)	
Weighted average shares - basic	22,454 23,807			

# AWARE, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (in thousands)

	Years ended December 31,			
	2000	1999	1998	
Cash flows from operating activities:  Net income (loss)	\$ 13,414	\$ 4,898	(\$2,249)	
Depreciation and amortization	1,738 325	,	1,530 50	
Accounts receivable	181 (45) (2,716)	(1)	95	
Prepaid expenses	(31) (305) 439	(17) 308 190	(596) (50)	
Deferred revenue	1,469	(13)	13	
Net cash provided by (used in) operating activities	14,469	4,336	(2,296)	
Cash flows from investing activities: Purchases of property and equipment Other assets Net sales (purchases) of short-term investments	(1,305) 500 (4,824)	(3,075) (500) 2,038	(1,005)  (447)	
Net cash used in investing activities	(5,629)	(1,537)	(1,452)	
Cash flows from financing activities: Proceeds from issuance of common stock	7,574	8,937	3,763	
Net cash provided by financing activities		8,937		
Increase in cash and cash equivalents	16,414 35,248	11,736 23,512	15 23,497	
Cash and cash equivalents, end of year		\$ 35,248 =======		

# AWARE, INC. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (in thousands)

	Common Stock		Additional Paid-In	Retained Earnings (Accumulated	Treasury	Total Stockholders'	
	Shares	Am	ount	Capital	Deficit)	Stock	Equity
Balance at December 31, 1997	19,646	\$	196	\$ 52,640	(\$14,765)	(\$453)	\$ 37,618
Exercise of common stock options Issuance of common stock under	1,258		13	3,688			3,701
employee stock purchase plan Retirement of treasury stock Net loss	7			63 (453)	(2,249)	453	63  (2,249)
Balance at December 31, 1998	20,911		209	55,938	(17,014)		39,133
Exercise of common stock options Issuance of common stock under	1,001		10	8,785			8,795
employee stock purchase plan Net income	6			142	4,898		142 4,898
Balance at December 31, 1999	21,918		219	64,865	(12,116)		52,968
Exercise of common stock options Issuance of common stock under	680		7	7,405			7,412
employee stock purchase plan Tax benefit of stock option exercises Net income	8			162 4,377	13,414		162 4,377 13,414
Balance at December 31, 2000	22,606 =======	\$ :=====	226 ======	\$ 76,809	\$ 1,298 	\$ 	\$ 78,333 ========

## AWARE, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### NATURE OF BUSINESS

Aware, Inc. ("Aware" or the "Company") designs, develops, licenses and markets Digital Subscriber Line ("DSL") technology that enables high-speed Internet access over existing telephone networks. The Company licenses its intellectual property and software to semiconductor manufacturers and equipment manufacturers that sell chips and equipment incorporating Aware's technology. Aware also markets to equipment companies to encourage them to design Aware's technology into their products, and to service providers to encourage them to deploy new broadband services based on Aware's technology. The Company's full-rate ADSL and G.lite offerings include licenses of patent rights, software and semiconductor designs and engineering services. The Company also offers hardware products, such as DSL test and development systems and customer premises equipment, as well as image compression software products.

#### SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation - The consolidated financial statements include the accounts of Aware, Inc. and its subsidiary. All significant intercompany transactions have been eliminated.

Cash and Cash Equivalents - Cash and cash equivalents consist primarily of demand deposits, money market funds, commercial paper, and discount notes in highly liquid short-term instruments with original maturities of three months or less from the date of purchase and are stated at cost, which approximates market.

Short-term Investments - At December 31, 2000 and 1999, the Company had categorized all securities as "available-for-sale," since the Company may liquidate these investments currently. In calculating realized gains and losses, cost is determined using specific identification. Unrealized gains and losses on available-for-sale securities are excluded from earnings and reported in a separate component of stockholders' equity. At December 31, 2000 and 1999, unrealized gains and losses were not material.

The amortized cost of securities, which approximates fair value, consists of the following at December 31, 2000 and 1999 (in thousands):

	======	======
Total	\$5,841	\$1,017
U.S. agency securities	5,841	
Corporate debt securities	\$	\$1,017
Type of security	2000	1999

Allowance for Doubtful Accounts - Accounts are charged to the allowance for doubtful accounts as they are deemed uncollectible based on a periodic review of the accounts. Bad debt expense was approximately \$325,000, \$100,000, and \$50,000 for 2000, 1999, and 1998, respectively.

Inventories - Inventories are stated at the lower of cost or market with cost being determined by the first-in, first-out ("FIFO") method.

Property and Equipment - Property and equipment are stated at cost. Depreciation and amortization of property and equipment is provided using the straight-line method over the estimated useful lives of the assets. Upon retirement or sale, the costs of the assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is included in the determination of income or loss. The estimated useful lives of assets used by the Company are:

Bullding and improvements	30 years
Furniture and fixtures and office equipment	5 years
Computer & manufacturing equipment	3 years
Purchased software	3 years

The Company accounts for the impairment of long-lived assets in accordance with the provisions of SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of."

Revenue Recognition - Effective January 1, 2000, the Company adopted Securities and Exchange Commission Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements ("SAB 101"). The Company recognizes revenue when there is persuasive evidence of an arrangement, the sales price is fixed or determinable, collection of the related receivable is reasonably assured and delivery has occurred or services have been rendered as more fully described below.

Product sales. Product sales consist primarily of revenue from the sale of modems, access routers, transceiver modules, test and development systems, and compression software. Product sales are recognized upon shipment.

Contract revenue. The Company has entered into nonexclusive technology licensing agreements with semiconductor licensees that provide for the Company to receive fees for: (i) the transfer of intellectual property components and/or (ii) the performance of engineering services to customer specifications. Technology licensing agreements also provide licensees with the right to incorporate the Company's intellectual property components in their products with terms and conditions that have historically varied by licensee. Generally licensing agreements include one or more of the following elements: i) technology license fees; which are payable upon the transfer of intellectual property, ii) engineering service fees, which generally are payable upon the Company's achievement of defined milestones, and iii) royalty payments, which are generally payable when licensees use the Company's intellectual property in their products. The Company classifies license and engineering service fees received under licensing agreements as contract revenue.

The Company's revenue recognition methodology for contract revenue classifies licensing agreements between those contracts that contain multiple elements of license and engineering service fees and those contracts that contain a single element.

Multiple element licensing agreements. Contract revenue under multiple element agreements is recognized by recording total license and engineering fees for the entire contract on a straight-line basis over the estimated contract performance period, subject to the limitation that cumulative revenue through the end of any period may not exceed cumulative contract payments through that same period.

Single element licensing agreements. Technology license fees are recognized as revenue when technology transfers have been effected and no contingent factors are present. Engineering services are recognized as revenue when the defined milestones are completed. Engineering milestones have historically been formulated to correlate with the estimated level of effort and related costs. In 1998 and 1999, contract revenue included minimal amounts of revenue from U.S. government research contracts. Revenue from government contracts was recognized as services were performed.

Royalty revenue. Royalty revenue is generally recognized in the quarter in which a report is received from a licensee detailing the shipments of products incorporating the Company's intellectual property components (i.e., in the quarter following the sales of the licensed product by the licensee). The terms of the Company's licensing agreements generally require licensees to give notification to the Company and to pay royalties within 45 to 60 days of the end of the quarter during which sales of licensed products take place.

Change in Accounting Principle - Effective January 1, 2000 the Company changed its method of revenue recognition in accordance with SAB 101. Previously, the Company recognized contract revenue under multiple element agreements upon completion of contract milestones or upon transfer of intellectual property. Under the accounting method adopted retroactive to January 1, 2000, the Company now recognizes contract revenue under multiple element agreements by recording total license and engineering fees for the entire contract on a straight-line basis over the estimated contract performance period, subject to the limitation that cumulative revenue through the end of any period may not exceed cumulative contract payments through that same period. The cumulative effect of the change on prior years resulted in a charge to income of \$1.6

million for the year ended December 31, 2000. For the year ended December 31, 2000, the Company recognized \$0.7 million in revenue that was included in the cumulative effect adjustment as of January 1, 2000.

In 1999, the pro forma effect of retroactive application of SAB 101 would have resulted in net income of \$3.280 million and net income per share, basic and diluted, of \$0.15 and \$0.14, respectively. There was no pro forma effect on 1998.

Income Taxes - The Company computes deferred income taxes based on the differences between the financial statement and tax basis of assets and liabilities using enacted rates in effect in the years in which the differences are expected to reverse. The Company must establish a valuation allowance to offset temporary deductible differences, net operating loss carryforwards and tax credits when it is more likely than not that the deferred tax assets will not be realized.

Capitalization of Software Costs - The Company capitalizes certain internally generated software development costs after technological feasibility of the product has been established. No software costs were capitalized for the years ended December 31, 2000, 1999 and 1998, because such costs incurred subsequent to the establishment of technological feasibility, but prior to commercial availability, were immaterial.

Concentration of Credit Risk - At December 31, 2000 and 1999, the Company had bank cash balances and money market investments, in excess of federally insured deposit limits of approximately \$57.4 million and \$36.2 million, respectively.

Concentration of credit risk with respect to accounts receivable consists of \$3.4 million, \$0.6 million, \$0.5 million, and \$0.5 million with four customers at December 31, 2000 and to \$1.3 million, \$1.2 million, \$0.6 million, \$0.6 million, \$0.5 million, \$0.5 million, and \$0.5 million with seven customers at December 31, 1999.

Stock-Based Compensation - The Company grants stock options to its employees and directors. Such grants are for a fixed number of shares with an exercise price equal to the fair value of the shares at the date of grant. As permitted by SFAS No. 123, "Accounting for Stock-Based Compensation", the Company accounts for stock option grants in accordance with Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees" and FASB Interpretation No. 44 ("FIN 44"), "Accounting for Certain Transactions Involving Stock Compensation." Accordingly, the Company has adopted the provisions of SFAS No. 123 through disclosure only (Note 6).

Computation of Earnings per Share - Basic earnings per share is computed by dividing income available to common shareholders by the weighted average number of common shares outstanding. Diluted earnings per share is computed by dividing income available to common shareholders by the weighted average number of common shares outstanding plus additional common shares that would have been outstanding if dilutive potential common shares had been issued. For the purposes of this calculation, stock options are considered common stock equivalents in periods in which they have a dilutive effect. Stock options that are antidilutive are excluded from the calculation.

Use of Estimates - The preparation of the Company's financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Significant estimates include reserves for doubtful accounts, reserves for excess and obsolete inventory, useful lives of fixed assets, valuation allowance for deferred income tax assets, and accrued liabilities. Actual results could differ from those estimates.

Fair Value of Financial Instruments - The carrying amounts of cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued expenses approximate fair value because of their short-term nature.

Comprehensive Income - Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources, including foreign currency translation adjustments and unrealized gains and losses on marketable securities. For the years ended December 31, 2000, 1999 and 1998, comprehensive income (loss) was not materially different from net income (loss).

Recent Accounting Pronouncements - In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, (FAS 133), "Accounting for Derivative Instruments and Hedging Activities", which required adoption in periods beginning after June 15, 1999. FAS 133 was subsequently amended by Statement of Financial Accounting Standards No. 137, "Accounting for Derivative Instruments and Hedging Activities - Deferral of the Effective Date of FASB Statement No. 133" and is effective for fiscal years beginning after June 15, 2000, with earlier adoption permitted. The Company will adopt FAS 133 during fiscal 2001, as required. The Company has not historically entered into transactions involving derivative instruments, nor has it hedged any of its business activities, so it does not believe that adoption of FAS 133 will have an effect on its financial statements.

Reclassifications - Certain prior period amounts have been reclassified to be consistent with the current period presentation.

Segments - The Company organizes itself as one segment reporting to the chief operating decision-maker. The Company has sales outside of the United States, which are described in Note 8. All long-lived assets are maintained in the United States.

## 3. INVENTORIES

Inventories consisted of the following at December 31 (in thousands):

Total	\$167	\$122
Finished goods	25	28
Raw materials	\$142	\$ 94
	2000	1999

## . PROPERTY AND EQUIPMENT

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

	2000	1999
Land Building and improvements Computer equipment Purchased software Furniture and fixtures Office equipment Manufacturing equipment	\$ 1,080 8,757 4,367 1,907 864 319 267	\$ 1,080 8,720 3,545 1,588 784 276 263
Total Less accumulated depreciation and amortization	17,561 (6,374)	
Property and equipment, net	\$ 11,187 ======	\$ 11,620 ======

2000

1000

Deprecation expense amounted to \$1.7 million, \$1.8 million and \$1.5 million for the years ended December 31, 2000, 1999, and 1998, respectively.

#### INCOME TAXES

Deferred tax assets are attributable to the following at December 31 (in thousands):

	2000	1999
Federal net operating loss carryforwards	\$ 19,000	\$ 16,830
Research and development and other tax credit carryforwards .  State net operating loss carryforwards  Deferred revenue	9,481 3,163 355 489	5,788 3,016  354
Total Less valuation allowance	32,488 (25,395)	(25,988)
Deferred tax assets, net	\$ 7,093 =====	\$ =======

A reconciliation of the U.S. federal statutory rate to the effective tax rate is as follows:

	Year ended December 31,		
	2000	1999	1998
Federal statutory rate	34% 6	34% 4	(34)% (6)
Tax credits	(9) (58)	(69)	(44) 84
Other	5	4	
Effective tax rate	(22)%	 %	 %

In the fourth quarter of 2000, management determined that based on the Company's continuing profitability it was more likely than not that it will realize a portion of its tax assets. Accordingly, the Company recorded a deferred tax asset of \$7.1 million at December 31, 2000. Management will continue to evaluate, on a quarterly basis, the positive and negative evidence affecting the realizability of that portion of its deferred tax assets for which it has continued to establish a valuation reserve.

At December 31, 2000, the Company had federal net operating loss carryforwards of approximately \$55.9 million, which begin to expire in 2003, and federal research and development credit carryforwards of approximately \$5.5 million, which begin to expire in 2003. At December 31, 2000, the Company also had available state net operating loss carryforwards of approximately \$50.2 million, which begin to expire in 2001, and state research and development and investment tax credit carryforwards of approximately \$3.6 million, which begin to expire in 2006. The tax assets as of December 31, 2000 for which a valuation allowance was recorded are attributable to the exercise of stock options and the tax benefit of these items will be credited to additional paid-in capital, if realized.

## 6. STOCK COMPENSATION PLANS

At December 31, 2000, the Company has three stock-based compensation plans, which are described below. The Company adopted SFAS No. 123, but, as permitted, applies APB Opinion No. 25 and related Interpretations in accounting for options granted to employees and directors. The Company has no performance-based stock option plans. Had compensation cost for the Company's three stock-based compensation plans been determined based on the fair value at the grant dates as prescribed by SFAS No. 123, the Company's net income (loss) and basic and diluted net income (loss) per share would have been adjusted to the pro forma amounts indicated below (in thousands, except per share data):

	Year ended December 31,		
	2000	1999	1998
Net income (loss) - as reported	\$13,414	\$4,898	(\$2,249)
	(\$3,833)	(\$11,745)	(\$7,432)
Basic earnings (loss) per share - as reported	\$0.60	\$0.23	(\$0.11)
Basic earnings (loss) per share - pro forma	(\$0.17)	(\$0.55)	(\$0.37)
Diluted earnings (loss) per share - as reported	\$0.56	\$0.21	(\$0.11)
Diluted earnings (loss) per share - pro forma	(\$0.17)	(\$0.55)	(\$0.37)

The fair value of options on their grant date was measured using the Black-Scholes option pricing model. Key assumptions used to apply this pricing model are as follows:

	Year ended December 31,		
	2000 1999		1998
Average risk-free interest rate	6.15%	5.54%	5.15%
Expected life of option grants	5 years	5 years	5 years
Expected volatility of underlying stock	106%	98%	89%
Expected dividend yield			

Fixed Stock Option Plans - The Company has two fixed option plans. Under the 1990 Incentive and Nonstatutory Stock Option Plan ("1990 Plan"), the Company may grant incentive stock options or nonqualified stock options to its employees and directors for up to 2,873,002 shares of common stock. Under the 1996 Stock Option Plan ("1996 Plan"), the Company may grant incentive stock options or nonqualified stock options to its employees and directors for up to 6,100,000 shares of common stock. Under both plans, options are granted at an exercise price as determined by the Board of Directors; have a maximum term of ten years; and generally vest over three to five years. As of December 31, 2000, there were 44,995 shares available for grant under the 1996 Plan, and no shares available under the 1990 Plan.

A summary of the transactions of the Company's two fixed stock option plans for the years ended December 31, 2000, 1999, and 1998 is presented below:

	20	900	19	99	19	98
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year  Granted  Exercised  Forfeited or cancelled	3,538,687 1,631,350 (680,413) (405,941)	\$22.05 37.86 10.89 29.10	3,097,043 1,562,500 (1,000,399) (120,457)	\$ 9.24 38.14 8.79 11.54	3,554,171 1,477,217 (1,258,171) (676,174)	\$ 7.01 10.30 2.94 11.58
Outstanding at end of year	4,083,683	\$29.52 =====	3,538,687	\$22.05 =====	3,097,043	\$ 9.24 =====
Options exercisable at year end	1,711,351	\$23.79	1,595,443	\$16.32	1,278,888	\$ 7.69

The weighted average grant date fair values of options granted during the years ended December 31, 2000, 1999 and 1998 were 30.30, 29.16 and 7.40, respectively.

The following table summarizes information about stock options outstanding at December 31, 2000:

	Options Outstanding		Options Exe	ercisable
Number Outstanding at 12/31/00	Weighted-Avg. Remaining Contractual Life	Weighted-Avg. Exercise Price	Number Exercisable At 12/31/00	Weighted-Avg. Exercise Price
237,309	7.7 years	\$ 5.48	102,821	\$ 5.50
,			,	8.90
,			,	12.36
,			/	25.64
620,225	9.0	32.20	179,069	32.31
1,498,194	8.9	47.46	364,724	46.63
10,000	8.8	58.06	6,250	55.10
4,083,683	8.2	\$ 29.52	1,711,351	\$ 23.79
	Outstanding at 12/31/00 237,309 424,360 593,290 700,305 620,225 1,498,194 10,000	Number Weighted-Avg. Outstanding at 12/31/00 Contractual Life  237,309 7.7 years 424,360 5.8 593,290 6.9 700,305 8.8 620,225 9.0 1,498,194 8.9 10,000 8.8	Number         Weighted-Avg.           Outstanding at 12/31/00         Remaining Contractual Life Exercise Price           237,309         7.7 years \$ 5.48           424,360         5.8         9.06           593,290         6.9         12.28           700,305         8.8         23.50           620,225         9.0         32.20           1,498,194         8.9         47.46           10,000         8.8         58.06	Number Outstanding at 12/31/00         Remaining Remaining Remaining Exercise Price         Weighted-Avg. Exercisable Exercise Price         At 12/31/00           237,309         7.7 years         \$ 5.48         102,821           424,360         5.8         9.06         367,440           593,290         6.9         12.28         299,939           700,305         8.8         23.50         391,108           620,225         9.0         32.20         179,069           1,498,194         8.9         47.46         364,724           10,000         8.8         58.06         6,250

Employee Stock Purchase Plan - In June 1996, the Company adopted an Employee Stock Purchase Plan (the "ESPP Plan") under which eligible employees may purchase common stock at a price equal to 85% of the lower of the fair market value of the common stock at the beginning or end of each six-month offering period. Participation in the ESPP Plan is limited to 6% of an employee's compensation, may be terminated at any time by the employee and automatically ends on termination of employment with the Company. A total of 100,000 shares of common stock have been reserved for issuance. As of December 31, 2000 there were 78,730 shares available for future issuance under the ESPP Plan. The Company issued 7,808, 6,269 and 7,193 common shares in 2000, 1999 and 1998, respectively.

### COMMITMENTS AND CONTINGENT LIABILITIES

Lease Commitments - The Company owns its principal office and research facility in Bedford, Massachusetts, which it has occupied since November 1997. The Company conducts a portion of its research and development activities in leased facilities in Lafayette, California under a non-cancellable operating lease that expires in 2001.

The following is a schedule of future minimum rental payments required under the California operating lease (in thousands):

Year ended December 31,	
2001	\$21
Thereafter	
Total minimum lease payments	\$21

Rental expense was approximately \$105,000, \$14,000, and \$4,000 in 2000, 1999 and 1998, respectively.

Litigation - There are no material pending legal proceedings to which the Company is a party or to which any of its properties are subject which, either individually or in the aggregate, are expected by the Company to have a material adverse effect on its business, financial position or results of operations.

## B. BUSINESS SEGMENTS AND MAJOR CUSTOMERS

The Company organizes itself as one segment and conducts its operations in the United States.

The Company sells its products and technology to domestic and international customers. Revenues were generated from the following geographic regions (in thousands):

	2000	1999	1998	
United States	\$26,606	\$14,801	\$ 9,377	
Germany	2,060	2,431	1,673	
Asia/Pacific	1,567	2,169	182	
Europe, excluding Germany	171	946	519	
Rest of world	263	180	45	

Year ended December 31,

\$20,527

\$11,796

The portion of total revenue that was derived from major customers was as follows:

\$30,667

	Year ended December 31,		
	2000	1999	1998
Customer A	51%	22%	29%
Customer B	9%	11%	
Customer C	7%	10%	
Customer D	2%	12%	18%
Customer E		2%	14%

### 9. EMPLOYEE BENEFIT PLAN

In 1994, the Company established a qualified 401(k) Retirement Plan (the "Plan") under which employees are allowed to contribute certain percentages of their pay, up to the maximum allowed under Section 401(k) of the Internal Revenue Code. Company contributions to the Plan are at the discretion of the Board of Directors. Company contributions were \$166,000, \$148,000 and \$58,000 in 2000, 1999 and 1998, respectively.

### 10. NET INCOME (LOSS) PER SHARE

Net income (loss) per share is calculated as follows (in thousands, except per share data):

	Year ended December 31,			
	2000	1999	1998	
Net income (loss)	\$ 13,414	\$ 4,898	(\$ 2,249)	
Weighted average common shares outstanding Additional dilutive common stock equivalents	22,454 1,353	21,497 2,088	20,343	
Diluted shares outstanding	23,807 ======	23,585 ======	20,343	
Net income (loss) per share - basic Net income (loss) per share - diluted	\$ 0.60 \$ 0.56	\$ 0.23 \$ 0.21	(\$ 0.11) (\$ 0.11)	

For the years ended December 31, 2000 and 1999, options to purchase 1,508,194 and 897,000 shares of common stock at average weighted prices of \$47.53 and \$46.26 per share, respectively, were outstanding, but were not included in the computation of diluted EPS because the options' exercise prices were greater than the average market price of the common shares and thus would be anti-dilutive. For the year ended December 31, 1998, potential common stock equivalents of 1,027,457 were not included in the per share calculations for diluted EPS, because the Company had a net loss and the effect of their inclusion would be anti-dilutive.

## 11. QUARTERLY RESULTS OF OPERATIONS - UNAUDITED

The following table presents unaudited quarterly operating results for each of the Company's quarters in the two-year period ended December 31, 2000 (in thousands, except per share data). As discussed in Note 2, the Company changed its method of revenue recognition effective January 1, 2000. Accordingly, the following unaudited quarterly operating results for the first three quarters of the year ended December 31, 2000 have been adjusted to reflect the impact of the change in accounting method as if adopted on January 1, 2000.

2000	Quarters	Ended
------	----------	-------

	Control Control						
	March 31		June 30		September 30		December 31
	As Previously Reported	As Adjusted	As Previously Reported	As Adjusted	As Previously Reported	As Adjusted	As Reported
Revenue	. ,	\$ 6,563 1,696	\$7,198 1,919	\$7,018 1,738	\$8,106 2,750	\$8,019 2,664	\$9,067 3,392
Income before cumulative effect of change in accounting principle	,	2,266	2,588	2,408	3,507	3,421	6,937
Cumulative effect of change	2,110	2,200	2,300	2,400	3,301	5,421	0,331
in accounting principle		(1,618)					
Net income		648	2,588	2,408	3,507	3,421	6,937
Net income per share - basic	\$ 0.09	\$ 0.03	\$ 0.12	\$ 0.11	\$ 0.16	\$ 0.15	\$ 0.31
Net income per share - diluted	\$ 0.09	\$ 0.03	\$ 0.11	\$ 0.10	\$ 0.15	\$ 0.14	\$ 0.30

## 1999 Quarters Ended

	March 31	June 30	September 30	December 31
Revenue	\$4,306	\$4,711	\$5,407	\$6,103
	339	574	1,033	1,375
	677	919	1,425	1,877
Net income per share - basic	\$ 0.03	\$ 0.04	\$ 0.07	\$ 0.09
Net income per share - diluted	\$ 0.03	\$ 0.04	\$ 0.06	\$ 0.08

The pro forma effect of retroactive application of SAB 101 on the fourth quarter of 1999 would have resulted in revenue of \$5.696 million, income from operations of \$0.969 million, net income of \$1.471 million, and net income per share basic and diluted of \$0.07 and \$0.06, respectively.

## FINANCIAL STATEMENT SCHEDULE

Schedule II - Valuation and Qualifying Accounts - Years ended December 31, 2000, 1999, and 1998 (in thousands)

Col. A	Col. B	Col. C (1)	Col. C (2)	Col. D	Col. E
	Additions				
	Balance at Beginning of Period	Charged to Costs and Expenses		Deductions Charged to Reserves	Balance At End of Period
Allowance for doubtful accounts receivable:					
2000	\$175	\$ 325		\$ 98	\$402
1999	\$100	\$ 100		\$ 25	\$175
1998	\$ 50	\$ 50			\$100
Allowance for sales returns and allowances:					
2000	\$ 35		\$ 90		\$125
1999	\$ 50		(\$15)		\$ 35
1998	\$ 50				\$ 50
Inventory reserves:					
2000	\$159	\$ 50			\$209
1999	\$184	(\$25)			\$159
1998	\$ 17	\$ 275		\$108	\$184

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

### PART III

### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Our executive officers and directors, and their ages as of March 12, 2001 are as follows:

Name	Age	Position
Michael A. Tzannes	39	Chief Executive Officer and Director
Edmund C. Reiter	37	President and Director
Richard P. Moberg	46	Chief Financial Officer and Treasurer
Richard W. Gross	43	Senior Vice President - Strategic Development
John K. Kerr	63	Chairman of the Board of Directors
David Ehreth	51	Director
G. David Forney, Jr	60	Director

Michael A. Tzannes has been Aware's chief executive officer since April 1998 and has served as a director of Aware since March 1998. Mr. Tzannes served as Aware's president from April 1998 to March 2001. From September 1997 to April 1998, he served as Aware's chief technology officer and general manager of telecommunications. Mr. Tzannes served as Aware's senior vice president, telecommunications from April 1996 to September 1997, as Aware's vice president, telecommunications from December 1992 to April 1996, as a senior member of Aware's technical staff from January 1991 to November 1992, and as a consultant to Aware from October 1990 to December 1990. From 1986 to 1990, he was a staff engineer at Signatron, Inc., a telecommunications technology and systems developer. Mr. Tzannes received a Ph.D. in electrical engineering from Tufts University, an M.S. from the University of Michigan at Ann Arbor, and a B.S. from the University of Patras, Greece.

Edmund C. Reiter has served as Aware's president since March 2001 and as a director of Aware since December 1999. Mr. Reiter served as a senior vice president from May 1998 to March 2001, as Aware's vice president, advanced products from August 1995 to May 1998, as Aware's manager of product development for still image compression products from June 1994 to August 1995, as a senior member of Aware's technical staff from November 1993 to June 1994, and as a member of Aware's technical staff from December 1992 to November 1993. Mr. Reiter served as senior scientist at New England Research, Inc. from January 1991 to November 1992. Mr. Reiter received a Ph.D. from the Massachusetts Institute of Technology and a B.S. from Boston College.

Richard P. Moberg joined Aware in June 1996 as Chief Financial Officer and Treasurer. From December 1990 to June 1996, Mr. Moberg held a number of positions at Lotus Development Corporation, a computer software developer, including Corporate Controller from June 1995 to June 1996, Assistant Corporate Controller from May 1993 to June 1995, and Director of Financial Services from December 1990 to May 1993. Mr. Moberg received an M.B.A. from Bentley College and a B.B.A. in accounting from the University of Massachusetts at Amherst.

Richard W. Gross was appointed as Senior Vice President - Strategic Development in July 1999. Mr. Gross served as Vice President - Strategic Development from July 1998 to July 1999. Prior to the Vice President position, he held various senior level engineering positions from the time he joined Aware in September 1993 until July 1998. Prior to joining Aware, Mr. Gross was a senior technical staff member at GTE Laboratories from 1987 to 1993; a technical staff member at the Heinrich Hertz Institute from 1984 to 1987; and a programmer for IBM, Federal Systems Division from 1980 to 1984. Mr. Gross received a Ph.D. and M.S. in electrical engineering from the University of Rhode Island and a B.A. in physics from Holy Cross College.

John K. Kerr has been a director of Aware since 1990 and Chairman of the board of directors since March 1999. Mr. Kerr previously served as a director of Aware from 1988 to 1989 and as Chairman of the board of directors from November 1992 to March 1994. Mr. Kerr has been General Partner of Grove Investment Partners, a private investment partnership, since 1990. Mr. Kerr received an M.A. and a B.A. from Baylor University.

David Ehreth has served as a director of Aware since November 1997. Since April 1998, Mr. Ehreth has served as president, chief executive officer and chairman of Westwave Communications, Inc., a telecommunications software company. From June 1992 to August 1998, Mr. Ehreth served as division vice president of the access division of DSC Communications Corporation, a manufacturer of digital switching, access, transport and private network system products for the telecommunications industry. From 1987 to June 1992, Mr. Ehreth served as vice president of engineering of Optilink, Inc., a manufacturer of access systems for the telecommunications industry. Optilink, Inc. was acquired by DSC Communications Corporation in 1990. From 1977 to 1987, Mr. Ehreth held numerous positions in the Digital Telephone Systems division of Harris Corporation.

G. David Forney, Jr. has served as a director of Aware since May 1999. Mr. Forney was a Vice President of Motorola, Inc. from 1977 until his retirement in January 1999. Mr. Forney was previously a Vice President of research and development, and a director of Codex Corporation prior to its acquisition by Motorola in 1977. Mr. Forney is currently Bernard M. Gordon Adjunct Professor in the Department of Electrical Engineering and Computer Sciences at the Massachusetts Institute of Technology. Mr. Forney received an Sc.D. in electrical engineering from Massachusetts Institute of Technology and a B.S.E. in electrical engineering from Princeton University.

### ITEM 11. EXECUTIVE COMPENSATION

The information required by item 11 of Form 10-K is incorporated by reference from the information contained in the section captioned "Compensation of Directors and Executive Officers" in the Proxy Statement that will be delivered to our shareholders in connection with our May 24, 2001 Annual Meeting of Shareholders.

### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by item 12 of Form 10-K is incorporated by reference from the information contained in the section captioned "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement that will be delivered to our shareholders in connection with our May 24, 2001 Annual Meeting of Shareholders.

## ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by item 13 of Form 10-K is incorporated by reference from the information contained in the section captioned "Certain Transactions" in the Proxy Statement that will be delivered to our shareholders in connection with our May 24, 2001 Annual Meeting of Shareholders.

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

- (A) See Item 8 for an index to the consolidated financial statements, supplementary financial information, and financial statement schedule.
- (B) There were no reports on Form 8-K filed during the fourth quarter ended December 31, 2000.

## (C) INDEX TO EXHIBITS

Exhibits have been filed separately with the United States Securities and Exchange Commission in connection with the Annual Report on Form 10-K or have been incorporated into the report by reference. Copies of such exhibits may be obtained from the Company upon request.

Exhibit No.	Description of Exhibit
3.1	Amended and Restated Articles of Organization (filed as Exhibit 3.2 to the Company's Registration Statement on Form S-1, File No. 333-6807 and incorporated herein by reference).
3.2	Amended and Restated By-Laws (filed as Exhibit 3.3 to the Company's Form 10-Q for the quarter ended June 30, 1996 and incorporated herein by reference).
10.1	1990 Incentive and Non-Statutory Stock Option Plan (filed as Exhibit 10.2 to the Company's Registration Statement on Form S-1, File No. 333-6807 and incorporated herein by reference).
10.2	1996 Stock Option Plan, as amended and restated (filed as Annex A to the Company's Definitive Proxy Statement filed with the Securities and Exchange Commission on April 11, 2000 and incorporated herein by reference).
10.3	1996 Employee Stock Purchase Plan (filed as Exhibit 10.4 to the Company's Registration Statement on Form S-1, File No. 333-6807 and incorporated herein by reference).
10.4	Form of Director Indemnification Agreement (filed as Exhibit 10.13 to the Company's Registration Statement on Form S-1, File No. 333-6807 and incorporated herein by reference).
10.5	Employment Agreement of James C. Bender, dated October 27, 1994, as amended on December 20, 1996 and April 23, 1998 (filed as Exhibit 10.1 to the Company's Form 10-Q for the quarter ended March 31, 1998 and incorporated herein by reference).
21.1*	Subsidiaries of Registrant.
23.1*	Consent of PricewaterhouseCoopers LLP.
23.2*	Consent of Deloitte & Touche LLP.

<sup>\*</sup> Filed herewith

### **SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AWARE, INC.

By: /s/ Michael A. Tzannes

Michael A. Tzannes, Chief Executive Officer

Date: March 28, 2001

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on the 28th day of March 2001.

Signature Title

Michael A. Tzannes

/s/ Edmund C. Reiter President and Director

Edmund C. Reiter

/s/ Richard P. Moberg Chief Financial Officer, Treasurer

- ----- (Principal Financial and Accounting Officer) Richard P. Moberg

/s/ John K. Kerr Chairman of the Board of Directors

John K. Kerr

/s/ David Ehreth Director

- -----

David Ehreth

/s/ G. David Forney, Jr. Director

G. David Forney, Jr

Exhibit 21.1

## SUBSIDIARIES OF REGISTRANT

### CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-15805 and 333-45026) of Aware, Inc. of our report dated January 26, 2001 relating to the financial statements and financial statement schedule, which appears in this Form 10-K.

PricewaterhouseCoopers LLP

Boston, Massachusetts March 28, 2001

## CONSENT OF INDEPENDENT ACCOUNTANTS

We consent to the incorporation by reference in Registration Statement Nos. 333-15805 and 333-45026 of Aware, Inc. on Forms S-8, of our report dated January 26, 1999, appearing in this Annual Report on Form 10-K of Aware, Inc. for the year ended December 31, 2000.

/s/ Deloitte & Touche LLP

Boston, Massachusetts March 27, 2001