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FINANCIAL

CORPORATE PROFILE

Centillum Communications, Inc. combines technical innovation and customer commitment to make broadband communications—in business and at home—a practical reality. We design and market communications chipsets for Digital Subscriber Line (DSL) central office and customer premises equipment and for carrier and enterprise-class Voice over Packet (VoP) gateways and switches.

We work closely with our customers throughout the development cycle, resulting in products that meet their needs. Centillum's commitment to delivering systems with the highest possible value means consistently providing fast and efficient performance for broadband communications in residential and business markets. As the Internet and data communications transform broadband networking, Centillum will continually invent better ways for its customers to take advantage of new business opportunities.

Centillum's history of consistently delivering innovative solutions is due to our employees' in-depth expertise in communications systems, programmable digital signal processors, complex transmission signal algorithms and analog and mixed-signal electronics. From the beginning, we have partnered with leading manufacturing and assembly facilities to deliver integrated circuits that push the limits of manufacturing technology. By leveraging these partnerships, Centillum is able to take advantage of the latest manufacturing processes and maintain the highest standards of quality.

FINANCIAL HIGHLIGHTS *(Unaudited)*

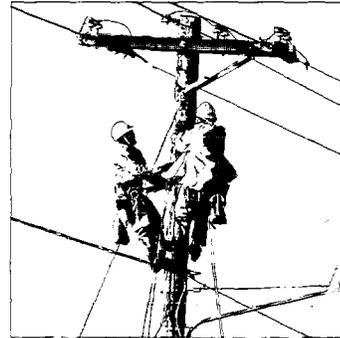
as of and for the years ended Dec 31	2001	2000	1999
Net Revenues	\$159,507,000	\$56,474,000	\$3,744,000
Pro Forma Net Income (Loss)*	7,499,000	(17,228,000)	(15,645,000)
Pro Forma Net Income (Loss) Per Share*	0.20	(0.59)	(0.72)
Net Income (Loss)	(19,693,000)	(45,998,000)	(19,749,000)
Net Income (Loss) Per Share	(0.59)	(2.00)	(2.23)
Cash, Cash Equivalents and Short-term Investments	\$110,853,000	\$87,684,000	\$28,313,000
Employees	336	273	114

*Pro forma net income (loss) excludes purchased in-process research and development, recurring deferred stock compensation, certain other stock compensation and the amortization of acquisition related intangibles. In addition, the 2001 pro forma net income excludes a non-recurring charge for inventory obsolescence and a non-recurring charge related to a reduction in force completed in October 2001. Pro forma net loss per share does not consider the impact of common stock equivalents and assumes the conversion of convertible preferred stock into common stock. This pro forma information is not prepared in accordance with generally accepted accounting principles.

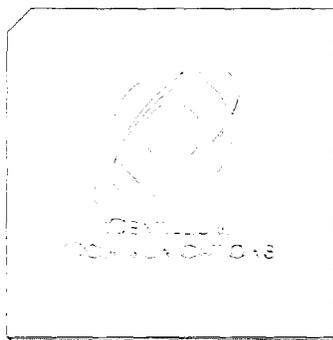
D R I V I N G T H E R E V O L U T I O N



Our DSL semiconductors for central office and customer premises applications enable broadband networks of the future



Our intelligent Smart Line Card™ technology speeds DSL installation, reduces cost and simplifies manufacturing



Our VoP technology enables telecommunications carriers to significantly lower costs by utilizing their more efficient data networks for voice transmissions



Our technology reduces network congestion and simplifies premises networking, paving the way for next-generation communications applications



Centilium's innovative technologies continue to create new possibilities for our customers. Our DSL technologies allow existing copper telephone lines to transmit and receive data up to 100 times faster than today's fastest dial-up products and our VoP technologies enable carriers to use their low cost data networks to more efficiently deliver voice services.

As people increasingly rely on the Internet and broadband networks in their personal and professional lives, demands for speed, quality and convenience will continue to grow. Growth in demand will mean new broadband market opportunities, and with our recognized skill in product development and attention to customer needs, we are poised to identify and take advantage of these new opportunities as they arise.



Faraj Aalaei
Chief Executive Officer
and Co-Founder

T O U R S H A R E H O L D E R S

During 2001, Centillium enhanced its reputation as a worldwide leader in broadband communications by achieving a number of remarkable financial and technical accomplishments in the face of an otherwise discouraging market for communications equipment. We reaped the benefits of our early investments in the DSL market in Japan, resulting in strong financial performance throughout the year. Furthermore, we continued to invest in geographic markets outside of Japan, winning important DSL and Voice over Packet customers throughout the world.

Our revenues grew from \$56 million in 2000 to a record \$160 million. We achieved our first quarter of profitability on a pro forma basis during the first quarter of 2001 and remained pro forma profitable during all four quarters. We also increased our cash position from \$88 million at the end of 2000 to \$111 million at the end of 2001 without any significant financing activities. But even with our financial success, we remained cognizant of the prevailing economic environment and completed a rigorous expense reduction effort in the fourth quarter, lowering operating expenses by 9% from the previous quarter without sacrificing any development programs.

Centillium also achieved significant technical breakthroughs during the year. We introduced our newest Entropia™ VoP product, the industry's highest density, single-chip solution, which processes voice signals for transmission over an ATM or IP data network. The transformerless technology of our new CopperConnect™ product reduces DSL line card layout complexity,

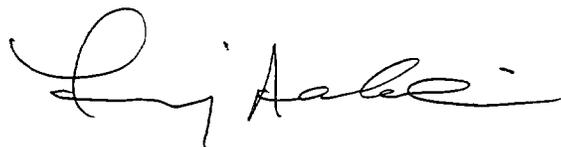
improves yields and lowers costs for equipment manufacturers. Our new Single Ended Line Probing technology can significantly lower DSL service provider operating costs by automating wire line performance testing and accelerating installation time.

We believe that the foundation for future growth must be built today. To support that growth, we established a new design center in Plano, Texas and increased investments in our design centers in Fremont, California; Huntsville, Alabama; Vallauris, France; and Bangalore and Delhi, India. We expanded our operations, manufacturing and management information systems infrastructure. Additionally, we enhanced our VoP technology and expertise by completing the acquisition of vEngines, Inc.

By combining our entrepreneurial vision and customer focus, we've been able to translate our financial stability and technological innovation into market success. As equipment providers around the globe entered the next information age, they turned to us for our unwavering focus on technical innovation and customer commitment. Expansion of our DSL geographic footprint included design wins in North America, Europe and Asia with our new eight megabits per second (full rate) DSL products.

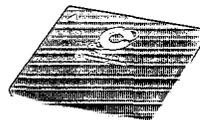
Currently, some of the most exciting communications equipment opportunities are found in Asian markets, where we have increased our presence by opening new offices in Japan and China and adding sales and engineering support staff in Korea and Taiwan. We further entrenched ourselves in Japan's DSL chipset market by strengthening our partnerships with Sumitomo Electric Industries and NEC, Japan's leading DSL equipment manufacturers.

Our solid financial standing, innovative technologies, keen eye for identifying market opportunities and attention to customer concerns allow us to anticipate and nimbly exploit each new market opportunity. By drawing on our employees' strong network systems expertise, applying novel ideas and inventing breakthrough technologies, we will continue to rapidly deploy revolutionary products to market and reinforce our legacy of delivering technological firsts.



Faraj Aalaee

Chief Executive Officer and Co-Founder



L E A D I N G B R O A D B A N D

C O M M U N I C A T I O N S

T H R O U G H T E C H N I C A L

I N N O V A T I O N

A N D C U S T O M E R

C O M M I T M E N T



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, 2001

or

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934
FOR THE TRANSITION PERIOD FROM _____ TO _____

Commission File Number 000-30649

CENTILLIUM COMMUNICATIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware

94-3263530

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

47211 Lakeview Boulevard, Fremont, California 94538

(Address of principal executive offices including zip code)

(510) 771-3700

(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

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 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.

The aggregate market value of the voting stock held by non-affiliates of the Registrant, as of February 20, 2002, was approximately \$229,900,780 based upon the closing price for shares of the Registrant's Common Stock as reported by the Nasdaq National Market. Shares of Common Stock held by each executive officer, director and holder of 5% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

On February 20, 2002, approximately 34,635,875 shares of the Registrant's Common Stock, \$0.001 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates certain information by reference from the registrant's definitive proxy statement (the "Proxy Statement") for the Annual Meeting of Shareholders to be held on June 11, 2002.

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CAUTIONARY STATEMENT

This report contains forward-looking statements which include, but are not limited to, statements concerning projected revenues, expenses, gross profit and income, the need for additional capital, market acceptance of our products, our ability to consummate acquisitions and integrate their operations successfully, our ability to achieve further product integration, the status of evolving technologies and their growth potential and our production capacity. These forward-looking statements are based on our current expectations, estimates and projections about our industry, management's beliefs and certain assumptions made by us. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "may," "will" and variations of these words or similar expressions are intended to identify forward-looking statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, our actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors. The section entitled "Risk Factors" set forth in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," of this report, and similar discussions in our other Securities and Exchange Commission ("SEC") filings, discuss some of the important risk factors that may affect our business, results of operations and financial condition. You should carefully consider those risks, in addition to the other information in this report and in our other filings with the SEC, before deciding to invest in our company or to maintain or increase your investment. We undertake no obligation to revise or update publicly any forward-looking statements for any reason.

PART I

ITEM 1. BUSINESS

Centillum is a leading provider of highly integrated silicon solutions that enable broadband communications. Using proprietary technologies and advanced design methodologies, Centillum designs, develops and supplies communications semiconductor solutions for applications in the Digital Subscriber Line (DSL) and Voice over Packet (VoP) markets.

The increasing desire of consumers and businesses to obtain low-cost, high-bandwidth and always-on access to the Internet and the continuing cost competitive pressures on voice services have created the need for new generations of communications semiconductor solutions. Broadband transmission of digital information over existing infrastructures requires highly integrated semiconductor solutions to perform critical systems functions such as complex signal processing and converting digital data to and from analog signals. Broadband communications equipment requires substantially higher levels of system performance, in terms of both speed and precision, than can typically be addressed by traditional semiconductor solutions developed for low-speed transmission applications. Moreover, solutions that are based on multiple discrete analog and digital chips generally cannot achieve the cost-effectiveness, performance and reliability required by the broadband communications markets. These requirements are best addressed by new generations of highly integrated semiconductor devices that combine complex functions with high-performance circuitry that can be manufactured in high volumes using cost-effective semiconductor technologies.

MARKETS

DIGITAL SUBSCRIBER LINE

Although the availability and use of high bandwidth applications for the Internet has grown significantly in recent years, low-speed, dial-up access for consumers and expensive T-1 lines for businesses remain the predominant methods for reaching the Internet. Consumers are seeking low-cost, high-speed access to Internet content and other services that require transmission of large amounts of data such as highly graphical Web sites, MP3 audio files and streaming multimedia applications. Businesses have even greater requirements for high-speed access in order to implement electronic commerce strategies and to provide telecommuting employees with the same capabilities they would experience at the office.

As more consumers and businesses have begun to rely on the Internet and communications networks, the demand for access to these networks has accelerated. As a result, the number of devices and access lines leading into these networks has undergone dramatic growth. In addition, the demand for access is increasing as more and more corporate telecommuters, small businesses and self-employed individuals regularly access the Internet and other communications networks. Many users are demanding the same access speeds from their home offices that they experience at corporate locations.

To meet the demand for high-speed, broadband data transmission, network access providers have upgraded the main transmission channels, or backbone, of their networks with faster equipment. While this network backbone is now capable of delivering data at very high speeds, an access bottleneck continues to exist between the telephone companies' central offices and the end-users' homes and businesses. These copper line connections between the central office and the end-user are commonly known as the last mile. The last mile infrastructure was originally designed for low-speed analog voice traffic rather than high-speed digital data transmission. As a result, access to the Internet and private communications networks over the copper wire infrastructure of the last mile has typically been limited to data transmission rates of up to 56 kilobits per second using standard dial-up analog modems. At this rate, several minutes may be required to access and display a media-rich Web site, and several hours may be required to transfer or download large files.

DSL technology allows consumers or businesses to access the Internet at speeds of up to eight megabits per second or more than 100 times as fast as dial up access by using the existing copper telephone wiring between the telephone company's central office and the end user. According to the Dell'Oro Group, the number of worldwide DSL subscribers grew from 5.6 million at the end of 2000 to 16.8 million at the end of 2001 and is projected to reach 32.0 million by the end of 2002.

VOICE OVER PACKET

Consumers and businesses have become increasingly sensitive regarding their telephone service costs. Additionally, portions of many traditional voice networks are constrained by capacity limitations and also require routine maintenance of the existing communications equipment. As a result, telecommunications service providers must continuously evaluate the need for additional cost-efficient voice transmission and processing capacity in portions of their legacy voice networks. They have a choice of adding traditional equipment for supporting voice transmissions on their legacy networks or equipment based on high-density, cost-effective packet-based technologies.

VoP technology provides a number of economic and competitive advantages for service providers. A high-capacity packet-based gateway or switch based on VoP technology allows service providers to reduce their investment in traditional Class 5 and Class 4 circuit switches and migrate to a converged voice and data switching infrastructure. A key benefit of this convergence is that service providers can reduce the long-term cost of providing voice transmission services by migrating these transmissions from their legacy voice networks to their more efficient data networks.

These data networks use several different transmission standards, such as asynchronous transfer mode or ATM, Internet Protocol or Frame Relay. Voice over Packet technology enables voice signals to be transmitted over networks originally designed for data transmission by compressing voice signals into discrete packets of data, using one of the existing data transmission standards. Because of the high efficiencies enabled by these transmission standards, voice transmissions on a data network are significantly less costly than transmissions using the existing voice trunks connecting carriers' central office locations.

STRATEGY

Our objective is to be the leading provider of system-level products for equipment manufacturers serving the broadband communications markets. Key elements of our strategy include the following:

Target complementary high-growth broadband communications markets. Our strategy is to focus on complementary, high-growth broadband communications markets and to develop system-level solutions for applications in those markets. Our initial products are designed for the DSL infrastructure equipment, DSL end-user equipment and VoP markets. By targeting these complementary markets, which share common technologies and customers, we are able to more effectively utilize our existing engineering, sales and marketing resources.

Strengthen and expand relationships with strategic customers. We have established customer relationships with key equipment manufacturers, including Sumitomo Electric Industries, NEC, Lucent Technologies and Advanced Fibre Communications. We have shipped DSL products to each of these manufacturers, and have recognized approximately \$144.4 million in gross revenues from sales to this group during the year ended December 31, 2001. During this period, sales to Sumitomo Electric Industries and NEC accounted for 48% and 38% of our net revenues, respectively. We do not have long-term agreements with these customers relating to the sale of our products. Rather, they purchase our products on an order-by-order basis. These companies are market and technology leaders within the broadband communications market and selling products to these companies provides references for our products that in turn help to secure future sales. Collaborating with these industry leaders also helps us to enhance our technological capabilities. We believe these strategic relationships are essential to our continued growth and the further development and acceptance of our technologies.

Extend technology leadership. We have invested substantial resources to establish our technology leadership. We believe we were the first company to deliver a DSL infrastructure product, which manages multiple ports, and the first to deliver a set of the two primary semiconductors for a DSL modem that requires less than one watt of power. An important element of our technological leadership is our programmable digital signal processor and associated processing instructions, or algorithms, which are optimized for high-bandwidth communications applications. This core technology can be extended through the manipulation of algorithms and software to develop multiple communications products for complementary markets.

Leverage system-level expertise. Many of our system-level engineers have previous experience as employees of communication equipment manufacturers and are therefore very familiar with the requirements of, and challenges faced by, our customers. We combine this system-level engineering expertise with our expertise in integrated circuit, digital signal processor and software design to develop products that allow our customers to optimize time-to-market, performance and systems cost.

Pursue strategic acquisitions. Our strategy is to enhance our growth capability by pursuing selective acquisitions. This strategy allows us to more rapidly obtain complementary technologies and engineering talent and to access key markets and customer relationships. We believe completing selective acquisitions will be important to remain competitive as a complete solutions provider to manufacturers of broadband communications equipment.

PRODUCTS

DSL PRODUCTS

Each of our DSL products consists primarily of two semiconductor chips—a mixed-signal chip and a digital chip—and related software. The mixed-signal chip translates signals between analog and digital formats and our digital chip incorporates our proprietary software programmable digital signal processor, which provides flexibility for enhancements and upgrades.

The following features are common to each of our DSL products:

ADSL. Our DSL products are based on a type of DSL technology known as asymmetrical DSL or ADSL. ADSL technology provides substantially faster transmission of data from the network to the end-user than from the user to the network. This tradeoff works to the consumer's advantage in that most users typically download more data from the network than they send to the network.

Full rate ADSL/G.lite. Each of our DSL products is designed for use with either the full rate ADSL standard (up to eight megabits per second) or the G.lite standard (up to 1.5 megabits per second).

DSL INFRASTRUCTURE PRODUCTS

Our DSL infrastructure products are designed for use in the following types of DSL equipment:

DSLAM. A DSL access multiplexer, or DSLAM, aggregates the data traffic from a substantial number of home telephone lines for transmission through a data network.

Central office switch. A central office switch is a device that enables telephone subscribers to dial and make a connection with any other subscriber in the telephone network.

Remote terminal. A remote terminal is a generic name for telecommunications equipment that is located outside the telephone company's central office facility.

DSL CUSTOMER PREMISES EQUIPMENT (CPE) PRODUCTS

Our CPE products are deployed for use as a subsystem for devices that distribute network access for multiple appliances. Examples of these devices include the following:

Integrated access device/residential gateway. An integrated access device and a residential gateway combine multiple voice and data channels for transmission from a home or small business to the telephone company's central office.

Set-top box. A set-top box processes transmissions from the traditional cable television infrastructure and delivers digital signals, which can include voice, video or Internet access.

Bridge/router. A bridge or router is a device that resides between network segments and forwards data to its appropriate destination.

VOICE OVER PACKET PRODUCTS

We currently sell two classes of products for the VoP Market: Entropia CO and Entropia CPE. Entropia CO is sold to manufacturers of broadband infrastructure products for use in carrier class equipment such as voice gateways and soft switches and is positioned to support current and evolving VoP applications. Entropia CPE is being marketed for use in voice-enabling equipment installed at enterprises. Examples of such equipment are a high-end integrated access device, or IAD, which aggregates multiple voice and data channels from businesses for transmission over the data network, and a private branch exchange, or PBX, which is a computer server that manages telephone calls in medium to large businesses.

TECHNOLOGY

Our primary competitive advantage is technology expertise in key areas, including our system-level knowledge, programmable digital signal processor, signal processing algorithms, digital chip design capability, mixed-signal chip design capability and system-level software. Together, these capabilities have enabled us to provide system-level communications products, which have:

- flexibility due to programmability;
- low power consumption; and
- small size.

Software programmable digital signal processor. A cornerstone of our technology is our internally developed, software programmable digital signal processor. A digital signal processor, as it relates to communications applications, encodes digital data for transmission over bandwidth-limited media such as copper telephone lines and recovers the encoded data at the receiving end. Our software programmable digital signal processor is optimized for communications applications and provides high processing bandwidth with low power requirements. This digital signal processor can be programmed for several different applications such as DSL and VoP networking. We currently use this core technology in every product line that is being developed within our company. This software programmable digital signal processor technology gives us the advantage of field programmability and scalable upgradability of devices for future standards.

Signal processing algorithms. A key component of our continued success is the expertise that we have developed in communications algorithms. Communications algorithms are the processes and techniques used to transform a digital data stream into a specially conditioned analog signal suitable for transmission across copper telephone wires. We possess a thorough understanding of, and practical experience in, the process of transmitting and receiving a digital data stream in analog form. We also have significant experience developing algorithms to enable voice compression, echo cancellation and telephony signal processing. This expertise allows us to design highly efficient algorithms that in turn enable us to create products with high performance, re-programmability and low power consumption.

Digital chip design. We are experts in the area of highly complex, high-speed digital chip development. We perform both the logic design and the physical layout design for our products. All of our chips are designed and manufactured using the latest development tools and silicon process technologies.

Mixed-signal chip design. This mixed-signal chip translates signals between analog and digital formats. We believe our mixed-signal chip contains the highest level of integration in the industry, replacing the multiple components used in competing DSL solutions and also supporting multiple telephone lines for DSL infrastructure products.

System software. We have expertise in developing code that addresses the needs of network equipment manufacturers and service providers. Our knowledge of network operation and architectures allows us to write software that ensures that our products are interoperable with communications equipment vendors' products. In addition, our understanding of various operating systems and personal computer environments allows us to create software that provides for simple installation and operation.

CUSTOMERS AND STRATEGIC RELATIONSHIPS

We sell our products to leading manufacturers of broadband communications equipment in our target markets. Because we leverage our technologies across different markets, certain of our integrated circuits may be incorporated into equipment used in several different markets.

As part of our business strategy, we periodically establish strategic relationships with certain key customers. From time to time, we have also entered into development agreements with Sumitomo Electric Industries, NEC and Lucent Technologies to co-develop products.

A small number of customers have historically accounted for a substantial portion of our revenue. Sales to NEC represented approximately 38% of our net revenue in 2001 and approximately 10% of our net revenue in 2000. Sales to Sumitomo Electric Industries represented approximately 48% of our net revenue in 2001 and approximately 20% of our net revenue in 2000. The loss of a key customer could materially and adversely affect our business, financial condition and results of operations.

SALES AND MARKETING

Our sales and marketing strategy is to achieve design wins with technology leaders in each of our targeted broadband communications markets by, among other things, providing superior application and engineering support. We believe that providing comprehensive product service and support is critical to shortening our customers' design cycles and maintaining a competitive position in our targeted markets. We market and sell our products through our direct sales force and through our independent manufacturers' representatives. Our sales managers are dedicated to our principal customers to promote close cooperation and communication. Representatives support the sales managers by providing leads, nurturing customer relationships, closing design wins and securing customer orders.

We manage a number of marketing programs designed to communicate our capabilities and benefits to broadband access equipment manufacturers. Our Web site is an important marketing tool where a wide range of information is available, including product information, white papers, application notes, press releases and contributed articles. In addition, we participate in industry trade shows, technical conferences and technology seminars, conduct press tours and publish technical articles in industry journals.

BACKLOG

Our sales are made primarily pursuant to standard purchase orders for delivery of products. Due to industry practice, which allows customers to cancel or change orders with limited advance notice prior to shipment, we believe that backlog is not a reliable indicator of future revenue levels.

RESEARCH AND DEVELOPMENT

We have assembled a core team of experienced engineers and technologists, many of whom are leaders in their particular field or discipline. As of December 31, 2001, we employed 194 engineers in research and development. Our employees, including our research and development staff, have collectively co-authored over 100 patents. As of December 31, 2001, we held 8 issued U.S. patents, 36 U.S. utility patent applications pending and several provisional and foreign patent applications pending in various stages of prosecution. In addition, 189 of our employees hold a total of 236 advanced degrees, including 32 PhDs. These employees are involved in advancing our core technologies, as well as applying these core technologies to product development activities in our targeted markets.

We believe that the achievement of higher levels of integration, functionality and performance and the introduction of new products in our target markets is essential to our growth. As a result, we plan to increase research and development staffing levels in 2002. Research and development expense for 2001, 2000 and 1999 was approximately \$59.0 million, \$41.9 million and \$13.4 million, respectively.

OPERATIONS AND MANUFACTURING

We outsource the fabrication, assembly and testing of our semiconductor devices. This fabless model allows us to focus *our resources on the design, development and marketing of our products. We manage the production of our devices through our operations and manufacturing group, which consists of technology engineering, test engineering, quality assurance and reliability.*

We source our semiconductor fabrication from some of the world's largest foundries: Mitsubishi Electric, Taiwan Semiconductor Manufacturing Co. and United Microelectronics Corporation. Our manufacturing strategy is to qualify and utilize multiple facilities within a given foundry partner for the fabrication of a given IC semiconductor device. This second source strategy seeks to ensure production and performance consistency, both of which are critical for our products, while maintaining multiple channels of supply.

Our independent wafer probe test subcontractors conduct our wafer probe testing. Following completion of the wafer probe tests, the dies are assembled into packages and the finished products are tested by one of our five key subcontractors: ST Assembly Test Services, Amkor Technology, Siliconware Precision, United Test and Assembly Center Ltd or Advanced Semiconductor Engineering. *While we have not experienced any material disruption in supply from assembly subcontractors to date, we could experience assembly problems in the future. The availability of assembly and testing services from these subcontractors could be materially and adversely affected in the event a subcontractor experiences financial difficulties, if a subcontractor suffers any damage or destruction to its respective facilities, or in the event of any other disruption of assembly and testing capacity.*

COMPETITION

Although we produce system-level products, we primarily compete with vendors of semiconductor devices for the DSL and VoP markets. We believe that the principal factors of competition for semiconductor vendors to these markets are product capabilities, level of integration, performance and reliability, power consumption, price, time-to-market, system cost, intellectual property, customer support and reputation. We believe we compete favorably with respect to each of these factors.

We compete with a number of major domestic and international suppliers of semiconductors for both DSL central office and customer premises equipment and with suppliers of semiconductors for equipment enabling VoP networks. Our principal competitors that supply semiconductors include Alcatel Microelectronics, Analog Devices, Broadcom, Conexant Systems, GlobespanVirata, Intel and Texas Instruments.

Many of our competitors operate their own fabrication facilities and have longer operating histories and presence in key markets, greater name recognition, access to larger customer bases and significantly greater financial, sales and marketing, manufacturing, distribution, technical and other resources. As a result, our competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements or devote greater resources to the promotion and sale of their products. Current and potential competitors have established or may establish financial or strategic relationships among themselves or with existing or potential customers, resellers or other third parties. Accordingly, it is possible that new competitors or alliances among competitors could emerge and rapidly acquire significant market share. In addition, our competitors may in the future develop technologies that more effectively address the transmission of digital information through existing analog infrastructures at a lower cost. We cannot assure you that we will be able to compete successfully against current or potential competitors, or that competition will not have a material adverse effect on our business, financial condition and results of operations.

INTELLECTUAL PROPERTY

We rely on a combination of copyright, patent, trademark, trade secret and other intellectual property law, nondisclosure agreements and other protective measures to protect our proprietary rights. We also utilize unpatented proprietary know-how and trade secrets and employ various methods to protect such intellectual property. To date, we have been granted eight U.S. patents and have a significant number of U.S. and international patent applications pending.

Although we employ a variety of intellectual property in the development and manufacturing of our products, we believe that none of such intellectual property is individually critical to our current operations. However, taken as a whole, we believe our intellectual property rights are significant and that the loss of all or a substantial portion of such rights could have a material adverse effect on our results of operations. We cannot assure you that our intellectual property protection measures will be sufficient to prevent misappropriation of our technology. In addition, the laws of many foreign countries do not protect our intellectual properties to the same extent as the laws of the United States. From time to time, we may desire or be required to renew or to obtain licenses from others in order to further develop and market commercially viable products effectively. We cannot assure you that any necessary licenses will be available on reasonable terms.

EMPLOYEES

As of December 31, 2001, we had a total of 336 employees, of whom 289 are engineers. None of our employees is represented by a labor union. However, certain of our foreign employees are subject to collective bargaining agreements mandated by local country law. We do not anticipate that the results of future negotiations under these collective bargaining agreements will have a material adverse financial impact on our business. We have not experienced any work stoppages, and we consider our relations with our employees to be good. Our future performance depends in significant part upon the continued service of our key personnel, none of whom is bound by an employment agreement requiring service for any definite period of time. Our future success also depends on our continued ability to attract, integrate, retain and motivate highly qualified sales, technical and managerial personnel. Competition for such qualified personnel is intense.

REVENUES BY GEOGRAPHIC AREA

The following is a summary of net revenues by major geographic area (in thousands):

	Years ended December 31,		
	2001	2000	1999
Japan	\$ 138,948	\$ 17,301	\$ 2,363
North America	16,710	34,451	676
Asia—Excluding Japan	3,108	4,587	555
All Other	741	135	150
Total	<u>\$ 159,507</u>	<u>\$ 56,474</u>	<u>\$ 3,744</u>

ITEM 2. PROPERTIES

We lease two buildings in Fremont, California that comprise our corporate headquarters and include our administration, sales and marketing, research and development, and operations departments. In addition, we have leases for engineering design centers in Huntsville, Alabama and Plano, Texas and a sales office in Boston, Massachusetts. Internationally, we lease one design center in France and two in India and we also lease sales offices in Japan and China.

These leases comprise an aggregate of 97,862 square feet and have terms expiring on or prior to December 2009. We believe that our current facilities, together with planned expansions, will be adequate for at least the next twelve months and that additional leased space can be obtained on commercially reasonable terms if needed.

ITEM 3. LEGAL PROCEEDINGS

We are not currently a party to any material litigation. Discussion regarding potential litigation can be found in Item 7, "Risk Factors" of this Form 10-K.

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

- (a) none
- (b) none
- (c) none
- (d) none

PART II**ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS****PRICE RANGE OF COMMON STOCK**

Our common stock has traded on the Nasdaq National Market under the symbol "CTLM" since our initial public offering in May 2000. The following table sets forth, for the periods indicated, the high and low closing bid prices for the common stock on the Nasdaq National Market:

	<u>High</u>	<u>Low</u>
<u>Year ended December 31, 2000:</u>		
Second Quarter	\$ 71.00	\$22.88
Third Quarter	\$107.00	\$63.00
Fourth Quarter	\$ 95.75	\$ 14.75
<u>Year ended December 31, 2001:</u>		
First Quarter	\$ 49.19	\$ 16.63
Second Quarter	\$ 37.15	\$ 17.47
Third Quarter	\$ 26.68	\$ 5.30
Fourth Quarter	\$ 10.21	\$ 4.62

On February 20, 2002 there were approximately 212 record holders of the Company's common stock, and the last reported sale price of the Company's common stock was \$10.00. We estimate that there were approximately 4,650 beneficial stockholders as of February 20, 2002.

DIVIDEND POLICY

We have never declared or paid cash dividends on shares of our capital stock. We currently intend to retain all of our earnings, if any, for use in our business and in acquisitions of other businesses, products or technologies and do not anticipate paying any cash dividends in the foreseeable future.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with the consolidated financial statements and related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this Annual Report on Form 10-K. The selected consolidated statement of operations data for each of the three fiscal years ended December 31, 2001, 2000 and 1999 and selected consolidated balance sheet data as of December 31, 2001 and December 31, 2000 are derived from, and qualified by reference to, the audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected consolidated statement of operations data for the fiscal year ended December 31, 1998 and the period from February 21, 1997 (inception) to December 31, 1997 and selected consolidated balance sheet data as of December 31, 1999, 1998 and 1997 are derived from audited financial statements not included in this Annual Report.

(In thousands, except per share data)	Years Ended December 31,				Period from
	2001	2000	1999	1998	February 21, 1997 (inception) to December 31, 1997
Consolidated Statement of Operations Data:					
Net revenues	\$ 159,507	\$ 56,474	\$ 3,744	\$ 752	\$ 300
Operating loss	\$ (21,847)	\$ (49,826)	\$ (20,781)	\$ (9,722)	\$ (2,102)
Net loss	\$ (19,693)	\$ (45,998)	\$ (19,749)	\$ (9,256)	\$ (1,937)
Deemed dividend of Series B convertible preferred stock	\$ —	\$ —	\$ —	\$ —	\$ (2,800)
Net loss applicable to common stockholders	\$ (19,693)	\$ (45,998)	\$ (19,749)	\$ (9,256)	\$ (4,737)
Net loss per share—basic and diluted	\$ (0.59)	\$ (2.00)	\$ (2.23)	\$ (1.15)	\$ (0.59)
Shares used to compute basic and diluted net loss per share	33,495	22,950	8,842	8,056	8,000
Consolidated Balance Sheet Data:					
Cash and cash equivalents and short-term investments	\$ 110,853	\$ 87,684	\$ 28,313	\$ 7,926	\$ 13,645
Working capital	\$ 103,663	\$ 94,739	\$ 26,043	\$ 6,686	\$ 12,537
Total assets	\$ 144,208	\$ 127,943	\$ 35,587	\$ 12,010	\$ 16,339
Long-term debt and capital lease obligations, less current portion	\$ —	\$ 221	\$ 549	\$ 1,235	\$ 630
Total stockholders' equity	\$ 121,158	\$ 106,870	\$ 30,055	\$ 9,259	\$ 14,156

See Note 1 of notes to the consolidated financial statements for an explanation of the determination of the number of shares used in computing per share data.

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

CAUTIONARY STATEMENT

You should read the following discussion and analysis in conjunction with the consolidated financial statements and related notes thereto contained elsewhere in this report. The information in this report is not a complete description of our business or the risks associated with an investment in our common stock. We urge you to carefully review and consider the various disclosures made by us in this report and in our other reports filed with the SEC.

The section entitled "Risk Factors" set forth in this report, and similar discussions in our other SEC filings, discuss some of the important risk factors that may affect our business, results of operations and financial condition. You should carefully consider those risks, in addition to the other information in this report and in our other filings with the SEC, before deciding to invest in our company or to maintain or increase your investment.

CRITICAL ACCOUNTING POLICIES

General. Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on going basis, we evaluate our estimates, including those related to product returns, the allowance for doubtful accounts, inventories, investments, intangible assets, income taxes, warranty obligations and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe that, of the significant accounting policies used in the preparation of our consolidated financial statements (see Note 1 of notes to the consolidated financial statements), the following are critical accounting policies, which may involve a higher degree of judgment and complexity.

Allowance for Doubtful Accounts. We record allowances for doubtful accounts for estimated losses based upon specifically identified amounts that we believe to be uncollectible. In addition, we record additional allowances based on certain percentages of our aged receivables, which are determined based on historical experience and our assessment of the general financial condition of our customer base. If our actual collections experience changes, revisions to our allowances may be required.

Sales Returns and Allowances. We establish, upon shipment of our products, a provision for estimated returns. Under certain circumstances we allow our customers to return products and a provision is made for such returns. Our estimate of product returns is based on contractual terms or sales agreements, historical experience and expectation of future conditions. Additional provisions and allowances may be required, resulting in decreased gross profit, should we experience increased product returns.

Inventory Valuation. We value our inventories at the lower of cost or market using the first-in, first-out method. We may record charges to write down inventories due to excess, obsolete and slow-moving inventory based on an analysis of the impact of changes in technology, the timing of these changes and our estimate of forecasted demand for our products. We typically use a six-month rolling forecast based on anticipated product orders, product order history, forecasts and backlog. We assess our current or committed inventory levels to these forecasts on a regular basis and any adverse changes to our future product demand may result in increased writedowns, resulting in decreased gross profit.

Litigation and Contingencies. From time to time, we receive various inquiries or claims in connection with patent and other intellectual property rights. In certain cases, we have accrued estimates of the amounts we expect to pay upon resolution of such matters. Should we not be able to secure the terms we expect, these estimates may change and may result in increased accruals, resulting in decreased profit.

OVERVIEW

We provide system-level products that enable broadband communications to the home and business enterprise. We serve the DSL and the Voice over Packet markets. Our current customers are broadband access equipment vendors who manufacture DSL equipment for use in the phone companies' communications infrastructure or in the customer premise for Internet or other network access in a home or small business. Our customers also include equipment vendors who supply products that allow convergence of data and voice networks.

We were incorporated on February 21, 1997 and commenced operations on April 1, 1997. During the period from February 1997 through June 1999, we were a development stage company focused on developing our initial products, recruiting personnel, building our corporate infrastructure and raising capital, and therefore had no product revenue. In 1999, we began shipping products and recorded our first significant product revenues in the third quarter, emerging from the development stage at that time. Since 1999, we have also increased our investment in research and development, sales and marketing, operations and our general and administrative infrastructure.

On May 24, 2000, we issued 4.0 million shares of our common stock in a registered underwritten initial public offering and 600,000 shares of our common stock in a concurrent private placement at a price of \$19.00 per share. On June 5, 2000, we sold an additional 600,000 shares pursuant to the underwriters' overallotment option granted in connection with our initial public offering. Net proceeds from these offerings were \$91.5 million and are being used for general working capital purposes and selected asset purchases.

Our revenues currently are derived from the sale of our DSL and Voice over Packet network products, which include the CopperLite CO, CopperLite CPE, Optimizer and Entropia families of products. To date, we have generated a substantial portion of our revenues from a limited number of customers. For the year ended December 31, 2001, Sumitomo Electric Industries and NEC represented 48% and 38% of our revenues, respectively. For the year ended December 31, 2000, Lucent Technologies, Sumitomo Electric Industries, Copper Mountain Networks, NEC and Nortel Networks represented 24%, 20%, 12%, 10% and 10%, of our revenues, respectively. Our top two customers in 1999 were Sumitomo Electric Industries and NEC, who accounted for 34% and 21% of our revenues, respectively.

During 1999 and 1998, we recorded \$1.2 million and \$0.8 million of revenues, respectively, under best efforts technology development agreements. Revenues under these agreements represent payments we received for the performance of contract engineering services. Under these agreements, we generally received payments upon the completion of contractual milestones. We are not required to refund any payments under the contracts. Our policy is to recognize revenue under technology development agreements when applicable contractual milestones have been met, including deliverables; in any case, revenue recognized does not exceed the amount that would be recognized using the percentage of completion method. In this regard, the timing of technology development revenue depends on the timing of completion of milestones under individual agreements. Technology development revenue was not significant after 1999, but we still generate revenue from certain customers under development agreements from time to time. The costs associated with our technology development revenues are closely related to the costs of our ongoing research and development activities. Generally, the incremental costs of providing any deliverables under our technology development arrangements are not easily distinguishable from the costs of our ongoing activities, are not significant and have been included in research and development in our statements of operations.

We have focused our initial sales and marketing efforts on Asian and North American communications equipment manufacturers. During the years ended December 31, 2001, 2000 and 1999, 89%, 39% and 78% of our revenues, respectively, were to Asia. Revenues from our customers in Asia increased in 2001 compared to 2000 primarily due to the broad market acceptance and use of our DSL products in Japan. Revenues from our customers in North America decreased in 2001 compared to 2000 primarily due to decreases in spending in the communications equipment industry. We currently sell through our direct sales force in China, Japan, North America and the United Kingdom. We also sell through sales representatives in Canada, China, Hong Kong, Israel, Italy, Japan, Korea, North America and Taiwan. International revenues are denominated solely in U.S. dollars, which reduces our exposure to foreign currency exchange risks.

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

Revenues related to product sales are generally recognized when the products are shipped to the customer, title has transferred and no significant obligations remain. Allowances are provided for estimated returns at the time of shipment. In circumstances where we have not shipped the final version of our product, or when a customer has delayed its acceptance of our product, we defer recognition of the revenue associated with the given product at the time of shipment. In addition, we defer technology development revenues when customers make advance payments and specified milestones under the technology development contract have not been met. This deferred revenue is recognized when the final version of the product is delivered, upon acceptance by the customer or when the specified milestones have been met. As of December 31, 2001, there was no deferred revenue. Deferred revenue as of December 31, 2000 was \$200,000 and was comprised primarily of unearned technology development fees and prepayments from certain customers.

It usually takes more than one year for us to realize volume shipments of our products after we first contact a customer. We first work with customers to achieve a design win, which may take six months or longer. Our customers then complete the design, testing and evaluation of their systems and begin the marketing process, a period which typically lasts an additional three to six months or longer. As a result, a significant period of time may elapse between our sales efforts and our realization of revenues, if any, from volume purchases of our products by our customers. Our customers are not obligated by long-term contracts to purchase our products and can generally cancel or reschedule orders on short notice.

We outsource the fabrication, assembly and testing of our products. Accordingly, a significant portion of our cost of revenues consists of payments to our manufacturing partners. Costs of revenues also encompass our internal manufacturing and operations functions and a portion of our information systems and facilities costs.

Research and development expenses consist primarily of salaries and related personnel costs, fees paid to consultants and outside service providers, prototype costs related to the fabrication of our silicon chips, and depreciation associated with software development tools and amortization of deferred compensation. We expense our research and development costs as they are incurred. Several components of our research and development effort require significant expenditures, the timing of which can cause significant quarterly variability in our expenses. For example, we require a substantial number of prototypes to build and test our complex products and therefore incur significant prototype costs. Because our research and development is key to our future success, we intend to increase our research and development expenditures in future periods.

Sales and marketing expenses consist primarily of salaries, commissions and related expenses for personnel engaged in marketing, sales, customer service and applications engineering support functions, costs associated with promotional and other marketing expenses, as well as amortization of deferred compensation. We intend to expand our direct and indirect sales operations substantially, both domestically and internationally, in order to increase market awareness, support customer requirements and increase orders for our products. We expect that sales and marketing expenses will increase over the next year as we hire additional sales and marketing personnel, initiate additional marketing programs to support our products and establish sales offices in additional domestic and international locations. We intend to expand our use of independent manufacturers' representatives. We believe that to be successful, we must reach agreement with additional representatives in several countries. In addition, the complexity of our products and the applications support necessary for successful interoperability and customer specific applications require highly trained customer service and support personnel. We expect to expand our customer service and support organization to meet these requirements.

General and administrative expenses consist primarily of salaries and related expenses for executives, finance, accounting, facilities, information services, human resources, recruiting expenses, professional fees, other corporate expenses and amortization of deferred compensation. In addition, general and administrative expenses include management's estimate of potential bad debt expense. We expect general and administrative expenses to increase as we add personnel and incur additional costs related to the growth of our business.

In connection with the grant of certain stock and other equity-based compensation to our employees, technical advisors and directors, we have recorded amortization of deferred compensation of \$15.3 million, \$25.6 million and \$4.1 million for the years ended December 31, 2001, 2000 and 1999, respectively. Deferred compensation is recorded upon grant and represents the difference between the grant price and the deemed fair value of our common stock options granted during these periods. Deferred compensation expense is being amortized using the graded vesting method, in accordance with Statement of Financial Accounting Standards No. 123 (FAS 123) and FASB Interpretation No. 28, over the vesting period of each respective option, generally four years. Under the graded vesting method, each option grant is separated into portions based on its vesting terms, which results in acceleration of amortization expense for the overall award. The accelerated amortization pattern results in expensing approximately 59% of the total award in year one, 25% in year two, 12% in year three and 4% in year four. Unamortized deferred compensation is presented as a reduction of stockholders' equity. See Note 7 of notes to consolidated financial statements for more information about our equity-based compensation programs.

We have not reported an operating profit for any year since our incorporation and have experienced net losses of approximately \$19.7 million, \$46.0 million and \$19.7 million for the years ended December 31, 2001, 2000 and 1999, respectively.

RESULTS OF OPERATIONS

The following table sets forth, for the periods presented, certain data from our consolidated statements of operations expressed as a percentage of total revenues.

	Years Ended December 31,		
	2001	2000	1999
Net revenues	100%	100%	100%
Cost of revenues	50	57	83
Gross profit	50	43	17
Operating expenses:			
Research and development	37	74	357
Sales and marketing	11	27	102
General and administrative	9	28	113
Amortization of goodwill and other acquisition-related intangibles	2	2	—
In-process research and development	5	—	—
Total operating expenses	64	131	572
Operating loss	(14)	(88)	(555)
Interest income	2	7	34
Interest expense	—	—	(6)
Loss on long-term investment	(1)	—	—
Provision for income taxes	—	—	—
Net loss	(13)%	(81)%	(527)%

YEARS ENDED DECEMBER 31, 2001 AND 2000

Net Revenues: Net revenues in 2001 were \$159.5 million, compared with \$56.5 million in 2000, an increase of 182%. The growth in revenue was due to a higher volume of shipments, which increased 191%, offset by a 4% decrease in our average selling price and changes in product mix. In addition, in the fourth quarter of 2001, we recorded \$1.1 million in revenues from cancellation fees.

Cost of Revenues: Cost of revenues, which reflects costs of product revenues, was \$79.8 million in 2001 and \$32.3 million in 2000 resulting in gross profit as a percentage of revenues of 50% and 43%, respectively. The increase in gross profit as a percentage of revenues was attributable to improved yields and cost reductions at our suppliers, an increase in unit volume of shipments and a decrease in excess and obsolete inventory writedowns as a percentage of sales. Our gross margins in the future may be affected by competitive pricing strategies and the future introduction of certain lower margin items.

Research and Development Expenses: Research and development expenses in 2001 were \$59.0 million, compared to \$41.9 million in 2000, an increase of 41%. The increase was due primarily to additions in engineering personnel, increased usage of materials necessary to build prototypes, increases in depreciation resulting from the additional purchases of laboratory equipment and software development tools offset by a decrease in the amortization of deferred compensation of \$2.7 million.

Sales and Marketing Expenses: Sales and marketing expenses in 2001 were \$18.0 million, compared to \$15.5 million in 2000, an increase of 16%. The increase was due primarily to the addition of personnel, an increase in marketing activity such as customer visits and attendance at trade shows offset by a decrease in the amortization of deferred compensation of \$2.7 million.

General and Administrative Expenses: General and administrative expenses in 2001 were \$13.9 million, compared to \$15.9 million in 2000, a decrease of 12%, which was primarily due to a decrease in the amortization of deferred compensation of \$4.2 million, offset by increases in payroll and related costs, professional services and business insurance expenditures. During 2001 and 2000, we charged \$102,000 and \$782,000, respectively, to bad debt expense based on our estimates of the collectibility of our accounts receivable.

Amortization of Deferred Compensation and Non-Cash Stock Compensation: Amortization of deferred compensation, which is allocated among the above expense categories, was \$15.3 million in 2001 compared to \$25.6 million in 2000, a decrease of \$10.3 million. The decrease was primarily attributable to the use of the graded vesting method, which results in accelerated amortization of deferred compensation expense in the earlier years of the awards' expected life. In addition, expenses for 2001 and 2000 include charges of \$70,000 and \$2.3 million, respectively, related to grants to consultants.

In-Process Research and Development Expense: In the first quarter of fiscal 2001, we wrote off \$7.4 million of acquired in-process research and development (IPR&D) related to our acquisition of vEngines, Inc. The entire IPR&D charge of \$7.4 million related to one project. This project related to the development of high-density voice processing semiconductor products, which bridge circuit switched voice and data networks. The write off was necessary because the acquired technology had not yet reached technological feasibility and there were no alternative future uses for the technology.

At the time of the acquisition, the efforts required to develop the acquired in-process technology principally related to the completion of all planning, design, development and testing activities that were necessary to establish that the product could be produced to meet its design specifications including features, function and performance. At the acquisition date, we expected certain aspects of the acquired in-process technology to be developed into commercially feasible products.

We estimated the fair value of the acquired in-process technology based upon projected future revenues and cash flows related to the product that was expected to result from the in-process project. Specific consideration was given to the percentage of completion of the in-process project, which was estimated at 55%. The forecast cash flows were discounted back to a present value using a discount rate of 25%.

At the acquisition date, we expected to incur additional costs of \$2.0 million to complete the in-process project, which we expected to complete in June 2001. Subsequent to the acquisition date, we discontinued development efforts on this specific project and intend to use certain aspects of this technology in future products.

Loss on Non-Current Investment: We monitor and evaluate the realizable value of our non-current equity investment and if events and circumstances indicate that the decline in value of this asset is other-than-temporary, we write down the carrying value to estimated fair value. In June 2001, in connection with the ongoing evaluation and review of our non-current equity investment, we recorded a non-cash charge of \$990,000 to write down the basis of this investment to zero as a result of this impairment. In January 2002, we sold this non-current equity investment for \$440,000 and will report this as a gain in the first quarter of 2002.

Interest Income: Interest income was \$3.6 million in 2001, compared to \$4.2 million in 2000, a decrease of 13%. This decrease was primarily due to lower interest rates obtained on our cash, cash equivalents and short-term investment portfolio, offset partially by an increase in average invested balances.

Interest Expense: Interest expense was \$76,000 in 2001, compared to \$334,000 in 2000, a decrease of 77%. The decrease was primarily due to the termination of our revolving credit agreement with Mitsubishi International Corporation in June 2000.

Provision for Income Taxes: We recorded a tax provision of \$400,000 for the year ended December 31, 2001, which represents federal and state minimum taxes as well as foreign income taxes. We recorded a provision for foreign income taxes of \$8,000 for the year ended December 31, 2000.

As of December 31, 2001, we have \$25 million and \$16 million of net operating loss carryforwards for federal and state purposes, respectively. We also have federal and state research and development tax credit carryforwards of approximately \$1.5 million and \$400,000, respectively. The net operating losses and federal credit carryforwards will expire at various dates beginning in 2005, if not utilized.

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

Financial Accounting Standards Board Statement No. 109, "Accounting for Income Taxes", provides for the recognition of deferred tax assets if realization of such assets is more likely than not. Based upon the weight of available evidence, which includes our historical operating performance and our reported cumulative net losses to date, we have provided a full valuation allowance against our deferred tax assets.

The valuation allowance at December 31, 2001 includes approximately \$3.9 million related to stock option deductions, the benefit of which will be recorded in paid-in capital when realized.

YEARS ENDED DECEMBER 31, 2000 AND 1999

Net Revenues: Net revenues in 2000 were \$56.5 million, compared with \$3.7 million in 1999, an increase of 1,408%. The growth in revenue resulted mainly from increases in volume shipments of our semiconductor products.

Cost of Revenues: Cost of revenues, which reflects costs of product revenues, was \$32.3 million in 2000 and \$3.1 million in 1999 resulting in gross profit as a percentage of revenues of 43% and 17%, respectively. The increase in gross profit was mainly attributable to the significant increase in the unit volume of shipments. The increase in gross profit as a percentage of revenues was driven by cost reductions from our suppliers. Our gross margins in the future may be affected by competitive pricing strategies and the future introduction of certain lower margin items.

Research and Development Expenses: Research and development expenses in 2000 were \$41.9 million, compared to \$13.4 million in 1999, an increase of 214%. The increase was due primarily to additions in engineering personnel, increased usage of materials necessary to build prototypes, increases in depreciation resulting from the additional purchases of laboratory equipment and software development tools and an increase in amortization of deferred compensation of \$9.0 million.

Sales and Marketing Expenses: Sales and marketing expenses in 2000 were \$15.5 million, compared to \$3.8 million in 1999, an increase of 305%. These increases were due primarily to the addition of personnel, an increase in marketing activity such as customer visits and attendance at trade shows and an increase in amortization of deferred compensation of \$4.2 million.

General and Administrative Expenses: General and administrative expenses in 2000 were \$15.9 million, compared to \$4.2 million in 1999, an increase of 275%. These increases were due primarily to the addition of personnel in the accounting, human resources, information services and facilities functions and an increase in amortization of deferred compensation of \$7.0 million. During 2000 and 1999, we charged \$782,000 and \$150,000, respectively, to bad debt expense to reserve for specific aged customer receivable balances and to establish a reserve for unidentified potential bad debt exposures.

Amortization of Deferred Compensation and Non-Cash Stock Compensation: Amortization of deferred compensation, which is allocated among the above expense categories, was \$25.6 million in 2000, compared to \$4.1 million in 1999, an increase of \$21.5 million. The increase was attributable to deferred stock compensation recorded in 2000 of \$31.1 million related to option grants made to a significant number of new and existing employees and the use of the graded vesting method, which results in accelerated amortization of deferred compensation expense in the earlier years of the awards' expected life. In addition, expenses for 2000 and 1999 include charges of \$2.3 million and \$173,000, respectively, related to grants to consultants.

Interest Income: Interest income was \$4.2 million in 2000, compared to \$1.3 million in 1999, an increase of 227%. This increase was due to higher cash and cash equivalent balances resulting from our initial public offering in May 2000.

Interest Expense: Interest expense was \$334,000 in 2000, compared to \$242,000 in 1999, an increase of 38%. The increase was due to higher outstanding balances under our working capital line of credit during 2000.

LIQUIDITY AND CAPITAL RESOURCES

Since our inception, we have financed our operations through a combination of sales of equity securities and cash generated by operations. At December 31, 2001, we had \$110.9 million in cash, cash equivalents and short-term investments as compared to \$87.7 million at December 31, 2000.

Cash and cash equivalents increased to \$93.7 million at December 31, 2001 from \$71.2 million at December 31, 2000. Operating activities provided \$25.8 million in cash. This was primarily the result of the net loss of \$19.7 million being more than offset by the non-cash impact of \$15.3 million in amortization of deferred compensation, \$7.5 million of depreciation and amortization expense, \$7.4 million of acquired in-process research and development expense and a write-down of \$990,000 in non-current investments. Net cash provided by operating activities also increased due to a decrease in accounts receivable of \$12.8 million and an increase in accrued liabilities of \$6.9 million, offset by decreases in accounts payable of \$5.3 million and other current assets of \$1.0 million.

Net cash used in investing activities was \$7.6 million for the year ended December 31, 2001, and was primarily related to net purchases of short-term investments, and purchases of property and equipment of \$7.3 million.

Cash generated from financing activities was \$4.3 million for the year ended December 31, 2001, and was primarily related to the net proceeds from employee stock plans.

Our principal source of liquidity as of December 31, 2001 consisted of \$110.9 million of cash and cash equivalents, and short-term investments. In 2001, we began generating cash in an amount sufficient to fund our operations. We anticipate that our existing capital resources and cash flow generated from future operations will enable us to maintain our current level of operations and planned operations and capital expenditures for at least the next 12 months. Significant contractual obligations and commercial commitments are shown in the table below (in thousands):

	<i>Payments due by period</i>				
	<u>Total</u>	<u>1 year</u>	<u>2-3 years</u>	<u>4-5 years</u>	<u>Over 5 years</u>
Operating leases—facilities	\$ 5,708	\$ 1,891	\$ 2,996	\$ 764	\$ 57
Operating leases—software	7,351	5,140	2,211	—	—
Inventory purchase commitments	4,574	4,574	—	—	—
Total cash obligations	<u>\$ 17,633</u>	<u>\$ 11,605</u>	<u>\$ 5,207</u>	<u>\$ 764</u>	<u>\$ 57</u>

We expect to devote capital resources to continue our research and development efforts, to support our sales, marketing and product development programs, to establish additional facilities worldwide and to fund other general corporate activities. From time to time, we receive various inquiries or claims in connection with intellectual property and other rights and may become party to associated claims. In certain cases, management has accrued estimates of the amounts it expects to pay upon resolution of such matters. Depending on the amount and timing of the resolutions of these claims, our future cash flows could be materially adversely affected in a particular period.

RECENT ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (FAS) No. 133, "Accounting for Derivative Instruments and Hedging Activities" (FAS 133). FAS 133 establishes accounting methods for derivative financial instruments and hedging activities related to those instruments as well as other hedging activities. We adopted FAS 133 as of January 1, 2001. Because we do not currently hold any derivative instruments and do not engage in hedging activities, the adoption of FAS 133 did not have a material impact on our financial position or results of operations.

In June 2001, the Financial Accounting Standards Board issued Statements of Financial Accounting Standards No. 141, "Business Combinations" (FAS 141), and No. 142, "Goodwill and Other Intangible Assets" (FAS 142). FAS 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001. FAS 141 also includes guidance on the initial recognition and measurement of goodwill and other intangible assets arising from business combinations completed after June 30, 2001. FAS 142 prohibits the amortization of goodwill and intangible assets with indefinite useful lives. FAS 142 requires that these assets be reviewed for impairment at least annually. Intangible assets with finite lives will continue to be amortized over their estimated useful lives.

We will apply FAS 142 beginning in the first quarter of fiscal 2002. Application of the nonamortization provisions of FAS 142 is expected to result in an increase in net income of \$2.8 million (\$0.08 per share) in fiscal 2002. We will reclassify an assembled workforce intangible asset with an unamortized balance of \$644,000 to goodwill at the date of adoption. We will test goodwill for impairment using the two-step process prescribed in FAS 142. The first step is a screen for potential impairment, while the second step measures the amount of the impairment, if any. We expect to perform the first of the required impairment tests of goodwill and indefinite lived intangible assets as of January 1, 2002 in the second quarter of fiscal 2002. Any impairment charge resulting from these transitional impairment tests will be reflected as the cumulative effect of a change in accounting principle in the second quarter of 2002. We have not yet determined what the effect of these tests will have on our financial statements.

In August 2001, the FASB issued FAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (FAS 144), which addresses financial accounting and reporting for impairment or disposal of long-lived assets and is effective January 1, 2002. FAS 144 supersedes FAS 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of", and the accounting and reporting provisions relating to the disposal of segments of a business under Accounting Principles Board Opinion No. 30. We do not expect that the adoption of FAS 144 will have a significant impact on our financial statements.

RISK FACTORS

You should carefully consider the risks described below and all of the information contained in this Form 10-K. If any of the following risks actually occur, our business, financial condition and results of operations could be harmed, the trading price of our common stock could decline and you may lose all or part of your investment in our common stock.

WE HAVE A HISTORY OF LOSSES AND WE MAY NOT ACHIEVE OR MAINTAIN PROFITABILITY.

We have not reported an operating profit for any year since our incorporation and have experienced net losses of approximately \$19.7 million, \$46.0 million and \$19.7 million for the years ended December 31, 2001, 2000 and 1999, respectively.

A GENERAL ECONOMIC SLOWDOWN, AND A SLOWDOWN IN SPENDING IN THE TELECOMMUNICATIONS INDUSTRY SPECIFICALLY, MAY NEGATIVELY AFFECT OUR BUSINESS AND OPERATING RESULTS.

There have been announcements throughout the worldwide telecommunications industry of current and planned reductions in component inventory levels and equipment production volumes, and of delays in the build-out of new infrastructure. Any of these trends, if continued, could result in lower than expected demand for our products, which could have a material adverse effect on our revenues and results of operations generally, and could cause the market price of our common stock to decline.

SEVERAL COMPANIES IN THE DSL MARKET HAVE EXPERIENCED SIGNIFICANT BUSINESS DIFFICULTIES DURING THE PAST YEAR, AND IF THERE IS CONTINUED SOFTNESS IN DEMAND FOR DSL EQUIPMENT, OUR BUSINESS AND OPERATING RESULTS MAY BE ADVERSELY AFFECTED.

Since mid-2000, a number of competitive local exchange carriers (CLECs) in the business of installing and providing DSL service have had difficulty in obtaining sufficient capital to build their infrastructure and to introduce their services. In 2001, Northpoint Communications and Rhythm NetConnections voluntarily filed for bankruptcy under Chapter 11. These companies have reduced their spending on DSL equipment, which has resulted in lower than expected sales volume for DSL equipment manufacturers including some of our major customers. In May 2001, Nortel Networks, historically one of our major customers, announced plans to exit the DSL equipment business. A continued or further slowdown in sales of DSL equipment will likely result in a decline, cancellation or delay in sales orders for our products, which are components of DSL equipment. Any such decline, cancellation or delay may negatively affect our business and operating results.

OUR STOCK PRICE MAY CONTINUE TO BE VOLATILE.

The market price of our common stock has been extremely volatile and will likely continue to fluctuate significantly in response to the following factors, some of which are beyond our control:

- variations in our quarterly operating results;
- changes in financial estimates of our revenues and operating results by securities analysts;
- changes in market valuations of integrated circuit companies;
- announcements by us, our competitors or others in related market segments of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- loss or decrease in sales to a major customer or failure to complete significant transactions;
- loss or reduction in manufacturing capacity from one or more of our key suppliers;
- additions or departures of key personnel;
- future sales of our common stock;
- stock market price and volume fluctuations attributable to inconsistent or low trading volume levels of our stock;
- commencement of or involvement in litigation;
- announcements by us or our competitors of key design wins and product introductions;
- a decrease in the average selling price of our products;
- ability to achieve cost reductions; and
- fluctuations in the timing and amount of customer requests for product shipments.

DUE TO OUR RECENT IMPLEMENTATION OF AN OPTION EXCHANGE PROGRAM, OUR MANAGEMENT AND EMPLOYEES MAY HAVE A NEAR TERM INCENTIVE TO KEEP OUR STOCK PRICE LOW.

We recently filed a statement on Schedule TO with the Securities and Exchange Commission relating to an offer to our employees, including our Chief Executive Officer, our President and our other executive officers, to exchange outstanding "underwater" stock options priced at \$10 or higher for new options to be issued on a future date, currently expected to be on or after June 4, 2002. The exercise price for the new options is expected to be equal to the market price of our common stock on the date of the grant. Since the relative value of the stock option increases as the exercise price decreases, management and employees participating in the option exchange would benefit from a lower market price for our common stock on June 4, 2002 (or such later date the new options are granted).

BECAUSE OUR PRINCIPAL STOCKHOLDERS AND MANAGEMENT MAY HAVE THE ABILITY TO CONTROL STOCKHOLDER VOTES, THE PREMIUM OVER MARKET PRICE THAT AN ACQUIRER MIGHT OTHERWISE PAY MAY BE REDUCED AND ANY MERGER OR TAKEOVER MAY BE DELAYED.

Our officers and directors and their affiliates owned or controlled approximately 14.7% of our common stock as of February 20, 2002. Accordingly, our officers and directors and their affiliates, as a group, may have the ability to control the election of a majority of the members of our board of directors and the outcome of corporate actions requiring stockholder approval. This concentration of ownership may have the effect of delaying, deferring or preventing a change in control of us, or may impede a merger, consolidation, takeover or other business combination involving us. This concentration of ownership could also adversely affect our stock's market price or lessen any premium over market price that an acquirer might otherwise pay.

AN ECONOMIC SLOWDOWN IN JAPAN MAY ADVERSELY AFFECT OUR BUSINESS AND OPERATING RESULTS.

Sales to customers located in Japan accounted for 87% of net revenues for the year ended December 31, 2001 and 31% of net revenues for the year ended December 31, 2000. Any slowdown in the demand for our customers' equipment in Japan may cause our revenues to decline. Our sales have been historically denominated in U.S. dollars and major fluctuations in currency exchange rates could materially affect our Japanese customers' demand, thereby forcing them to reduce their orders, which could adversely affect our operating results.

COMPETING DSL TECHNOLOGIES MAY BE DEPLOYED IN THE JAPANESE MARKET, WHICH MAY ADVERSELY IMPACT THE DEMAND FOR OUR DSL PRODUCTS, MARKET SHARE AND OPERATING RESULTS.

We have worked in partnership with local telecommunications companies to develop the Annex C standard for the Japanese market and have been able to achieve a dominant market share of DSL equipment purchases in Japan. In July 2001, a certain service provider announced plans to deploy lower priced competing DSL technologies in the Japanese market. If these competing technologies are successful, we may lose our dominant position in the Japanese market and our business and operating results may be adversely affected.

WE DERIVE A SUBSTANTIAL AMOUNT OF OUR REVENUES FROM INTERNATIONAL SOURCES, AND DIFFICULTIES ASSOCIATED WITH INTERNATIONAL OPERATIONS COULD HARM OUR BUSINESS.

A substantial portion of our revenues has been derived from customers located outside of the United States. For the year ended December 31, 2001, 89% of our net revenues were to customers located in Asia. We may be unable to successfully overcome the difficulties associated with international operations. These difficulties include:

- staffing and managing foreign operations;
- changes in regulatory requirements;
- licenses, tariffs and other trade barriers;
- political and economic instability;
- obtaining governmental approvals for products; and
- complying with a wide variety of complex foreign laws and treaties.

WE DEPEND ON A FEW CUSTOMERS AND IF WE LOSE ANY OF THEM OUR SALES AND OPERATIONS WILL SUFFER.

We sell our DSL products primarily to network equipment manufacturers. Our top two customers for the year ended December 31, 2001 were Sumitomo Electric Industries and NEC, accounting for 48% and 38% of our revenues, respectively. Our top five customers for the year ended December 31, 2000 were Lucent Technologies, Sumitomo Electric Industries, Copper Mountain Networks, NEC and Nortel Networks accounting for 24%, 20%, 12%, 10% and 10% of our revenues, respectively. We do not have formal long-term agreements with these customers, but rather sell our products to them on an order-by-order basis. We expect to be dependent upon a relatively small number of large customers in future periods, although the specific customers may vary from period to period. If we are not successful in maintaining relationships with key customers and winning new customers, our business and results of operations will suffer.

OUR EXECUTIVE OFFICERS AND KEY PERSONNEL ARE CRITICAL TO OUR BUSINESS, AND THESE OFFICERS AND PERSONNEL MAY NOT REMAIN WITH US IN THE FUTURE.

We depend upon the continuing contributions of our key management, sales, customer support and product development personnel. The loss of such personnel could seriously harm us. In addition, we have not obtained key-man life insurance on any of our executive officers or key employees.

COMPETITION FOR QUALIFIED PERSONNEL IN THE SEMICONDUCTOR AND TELECOMMUNICATIONS INDUSTRIES IS INTENSE, AND IF WE ARE NOT SUCCESSFUL IN ATTRACTING AND RETAINING THESE PERSONNEL, WE WILL NOT BE ABLE TO EXECUTE OUR BUSINESS PLAN.

Competition for qualified personnel in the semiconductor and telecommunications industries is intense, and we may not be successful in attracting and retaining personnel. There may be only a limited number of people with the requisite skills to serve in these positions, and it may become increasingly difficult to hire these people. Also, competitors and others have in the past, and may in the future, attempt to recruit our employees.

Furthermore, we rely, in part, on equity incentives to attract and retain qualified personnel. The market price of our common stock has fluctuated substantially since our initial public offering in May 2000. We have granted, and may grant, additional equity and/or cash compensation to our employees as incentive to remain with our Company. In addition, any perception by potential employees that our equity incentives are less attractive could harm our ability to attract qualified employees.

WE DEPEND ON SOLE SOURCE SUPPLIERS FOR SEVERAL KEY COMPONENTS OF OUR PRODUCTS.

We obtain certain parts, components and packaging used in the delivery of our products from sole sources of supply. For example, we obtain certain semiconductor wafers from Mitsubishi Electric and Taiwan Semiconductor Manufacturing Co., Ltd. If we fail to obtain components in sufficient quantities when required, and are unable to meet customer demand, our business could be harmed, as our customers would consider purchasing products from our competitors. We also rely on United Microelectronics Corporation to manufacture our analog silicon wafers. Developing and maintaining these strategic relationships with our vendors is critical for us to be successful. Any of our sole source suppliers may:

- enter into exclusive arrangements with our competitors;
- stop selling their products or components to us at commercially reasonable prices;
- refuse to sell their products or components to us at any price; or
- be subject to production disruptions such as earthquakes.

SALES OF OUR PRODUCTS DEPEND ON THE WIDESPREAD ADOPTION OF BROADBAND ACCESS SERVICES, ESPECIALLY DSL. IF THE DEMAND FOR BROADBAND ACCESS SERVICE DOES NOT INCREASE AS EXPECTED, WE MAY NOT BE ABLE TO GENERATE SUBSTANTIAL SALES.

Sales of our products depend on the increased use and widespread adoption of broadband access services, and DSL services in particular, and the ability of telecommunications service providers to market and sell broadband access services. Our business would be harmed, and our results of operations and financial condition would be adversely affected, if the use of broadband access services does not increase as anticipated. Certain critical factors will likely continue to affect the development of the broadband access service market. These factors include:

- inconsistent quality and reliability of service;
- lack of availability of cost-effective, high-speed service;
- lack of interoperability among multiple vendors' network equipment;
- congestion in service providers' networks;
- inadequate security; and
- slow deployment of new broadband services over DSL lines.

RAPID CHANGES IN THE MARKET FOR DSL CHIP SETS MAY RENDER OUR CHIP SETS OBSOLETE OR UNMARKETABLE.

The market for chip sets for DSL products is characterized by:

- intense competition;
- rapid technological change;
- frequent new product introductions by our competitors;
- changes in customer demands; and
- evolving industry standards.

Any of these factors could make our products obsolete or unmarketable. To compete, we must innovate and introduce new products. If we fail to successfully introduce new products on a timely and cost-effective basis that meet customer requirements and are compatible with evolving industry standards, then our business, financial condition and results of operations will be seriously harmed.

BECAUSE OTHER BROADBAND TECHNOLOGIES MAY COMPETE EFFECTIVELY WITH DSL SERVICES, OUR PRODUCTS MAY NOT CAPTURE MARKET SHARE.

DSL services are competing with a variety of different broadband data transmission technologies, including cable modems, satellite and other wireless technologies. If any technology that is competing with DSL technology is more reliable, faster and less expensive or has other advantages over DSL technology, then the demand for our DSL products may decrease.

OUR MARKETS ARE HIGHLY COMPETITIVE AND MANY OF OUR COMPETITORS ARE ESTABLISHED AND HAVE GREATER RESOURCES THAN WE HAVE.

The market for communications semiconductor and software solutions is intensely competitive. Given our stage of development, there is a substantial risk that we will not have the financial resources, technical expertise or marketing and support capabilities to compete successfully. In addition, a number of other semiconductor companies have announced their intent to enter the market segments adjacent to or addressed by our products. These competitors have longer operating histories, greater name recognition, larger installed customer bases and significantly greater financial, technical and marketing resources than we have. They may be able to introduce new technologies, respond more quickly to changing customer requirements or devote greater resources to the development, promotion and sale of their products than we can.

OUR CUSTOMERS MAY DEMAND PREFERENTIAL TERMS OR DELAY OUR SALES CYCLE, WHICH WOULD ADVERSELY AFFECT OUR RESULTS OF OPERATIONS.

Our customers are in most cases larger than us and are able to exert a high degree of influence over us. These customers may have sufficient bargaining power to demand low prices and other terms and conditions that may materially adversely affect our business, financial condition and results of operations. In addition, prior to selling our products to such customers, we must typically undergo lengthy product approval processes, often taking up to one year. Accordingly, we are continually submitting successive versions of our products as well as new products to our customers for approval. The length of the approval process can vary and is affected by a number of factors, including customer priorities, customer budgets and regulatory issues affecting telecommunication service providers. Delays in the product approval process could materially adversely affect our business, financial condition and results of operations. While we have been successful in the past in obtaining product approvals from our customers, such approvals and the ensuing sales of such products may not continue to occur. Delays can also be caused by late deliveries by other vendors, changes in implementation priorities and slower than anticipated growth in demand for the services that our products support. A delay in, or cancellation of, the sale of our products could adversely affect our results from operations or cause them to significantly vary from quarter to quarter.

FUTURE CONSOLIDATION IN THE TELECOMMUNICATIONS EQUIPMENT INDUSTRY MAY INCREASE COMPETITION THAT COULD HARM OUR BUSINESS.

The markets in which we compete are characterized by increasing consolidation both within the telecommunications equipment sector and by companies combining or acquiring data communications assets and assets for delivering voice-related services. We cannot predict with certainty how industry consolidation will affect our competitors. We may not be able to compete successfully in an increasingly consolidated industry. Increased competition and consolidation in our industry may require that we reduce the prices of our products or result in a loss of market share, which could materially adversely affect our business, financial condition and results of operations. Additionally, because we are now, and may in the future be, dependent on certain strategic relationships with third parties in our industry, any additional consolidation involving these parties could reduce the demand for our products and otherwise harm our business prospects.

WE MAY MAKE FUTURE ACQUISITIONS WHERE ADVISABLE AND ACQUISITIONS INVOLVE NUMEROUS RISKS.

Our business is highly competitive and, as such, our growth is dependent upon market growth, our ability to enhance our existing products and our ability to introduce new products on a timely basis. One of the ways we have addressed and may continue to address the need to develop new products is through acquisitions of other companies. Acquisitions involve numerous risks, including the following:

- difficulties in integration of the operations, technologies and products of the acquired companies;
- the risk of diverting management's attention from normal daily operations of the business;
- potential difficulties in completing projects associated with purchased in-process research and development;
- risks of entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions; and
- the potential loss of key employees of the acquired company.

Mergers and acquisitions of high-technology companies are inherently risky, and no assurance can be given that our previous or future acquisitions will be successful and will not materially adversely affect our business, operating results or financial condition.

We must also maintain our ability to manage such growth effectively. Failure to manage growth effectively and successfully integrate acquisitions could harm our business and operating results.

BECAUSE OUR PRODUCTS ARE COMPONENTS OF OTHER EQUIPMENT, IF BROADBAND EQUIPMENT MANUFACTURERS DO NOT INCORPORATE OUR PRODUCTS IN THEIR EQUIPMENT, WE MAY NOT BE ABLE TO GENERATE SALES OF OUR PRODUCTS IN VOLUME QUANTITIES.

Our products are not sold directly to the end-user; they are components of other products. As a result, we rely upon equipment manufacturers to design our products into their equipment. We further rely on the manufacturing and deployment of the equipment to be successful. If equipment that incorporates our products is not accepted in the marketplace, we may not achieve sales of our products in volume quantities, which would have a negative impact on our results of operations.

BECAUSE MANUFACTURERS OF COMMUNICATIONS EQUIPMENT MAY BE RELUCTANT TO CHANGE THEIR SOURCES OF COMPONENTS, IF WE DO NOT ACHIEVE DESIGN WINS WITH SUCH MANUFACTURERS, WE MAY BE UNABLE TO SECURE SALES FROM THESE CUSTOMERS IN THE FUTURE.

Once a manufacturer of communications equipment has designed a supplier's semiconductor into its products, the manufacturer may be reluctant to change its source of semiconductors due to the significant costs associated with qualifying a new supplier. Accordingly, our failure to achieve design wins with equipment manufacturers, which have chosen a competitor's semiconductor, could create barriers to future sales opportunities with these manufacturers.

IF WE DELIVER PRODUCTS WITH DEFECTS, OUR CREDIBILITY WILL BE HARMED, AND THE SALES AND MARKET ACCEPTANCE OF OUR PRODUCTS WILL DECREASE.

Our products are complex and have contained errors, defects and bugs when introduced. If we deliver products with errors, defects or bugs, our credibility and the market acceptance and sales of our products could be harmed. Further, if our products contain errors, defects and bugs, then we may be required to expend significant capital and resources to alleviate such problems. Defects could also lead to product liability as a result of product liability lawsuits against us or against our customers. We have agreed to indemnify our customers in some circumstances against liability from defects in our products. A successful product liability claim could seriously harm our business, financial condition and results of operations.

BECAUSE THE SALES CYCLE FOR OUR PRODUCTS TYPICALLY LASTS UP TO ONE YEAR, AND MAY BE SUBJECT TO DELAYS, IT IS DIFFICULT TO FORECAST SALES FOR ANY GIVEN PERIOD.

If we fail to realize forecasted sales for a particular period, our stock price could decline significantly. The sales cycle of our products is lengthy and typically involves a detailed initial technical evaluation of our products by our prospective customers, followed by the design, construction and testing of prototypes incorporating our products. Only after these steps are complete will we receive a purchase order from a customer for volume shipments. This process generally takes from 9 to 12 months, and may last longer. Given this lengthy sales cycle, it is difficult to accurately predict when sales to a particular customer will occur. In addition, we may experience unexpected delays in orders from customers, which may prevent us from realizing forecasted sales for a particular period. Our products are typically sold to equipment manufacturers, who incorporate our products in the products that they in turn sell to consumers or to network service providers. As a result, any delay by our customers, or by our customers' customers, in the manufacture or distribution of their products will result in a delay in obtaining orders of our products.

OUR FUTURE SUCCESS WILL DEPEND IN PART ON OUR ABILITY TO PROTECT OUR PROPRIETARY RIGHTS AND THE TECHNOLOGIES USED IN OUR PRINCIPAL PRODUCTS, AND IF WE DO NOT ENFORCE AND PROTECT OUR INTELLECTUAL PROPERTY, OUR BUSINESS WILL BE HARMED.

We rely on a combination of patent, copyright and trademark laws, trade secrets, confidentiality agreements and other contractual provisions to protect our proprietary rights. However, these measures afford only limited protection. Our failure to adequately protect our proprietary rights may adversely affect us. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or to obtain and use trade secrets or other information that we regard as proprietary.

THIRD-PARTY CLAIMS REGARDING INTELLECTUAL PROPERTY MATTERS COULD CAUSE US TO STOP SELLING OUR PRODUCTS, PAY MONETARY DAMAGES OR OBTAIN LICENSES ON ADVERSE TERMS.

There is a significant risk that third parties, including current and potential competitors, will claim that our products, or our customers' products, infringe on their intellectual property rights. The owners of these intellectual property rights may bring infringement claims against us. Any such litigation, whether or not determined in our favor or settled by us, would be costly and divert the attention of our management and technical personnel. Inquiries with respect to the coverage of our intellectual property could develop into litigation. In the event of an adverse ruling for an intellectual property infringement claim, we could be required to obtain a license or pay substantial damages or have the sale of our products stopped by an injunction. Such a license may not be available on reasonable terms or at all. In addition, if a customer of our chip sets cannot acquire a required license on commercially reasonable terms, that customer may choose not to use our chip sets. We have obligations to indemnify our customers under some circumstances for infringement of third-party intellectual property rights. From time to time we receive letters from customers inquiring as to scope of these indemnity rights. If any claims from third parties required us to indemnify customers under our agreements, the costs could be substantial and our business could be harmed.

We have received correspondence from certain parties, including Texas Instruments, Alcatel and Ricoh, requesting us to discuss the potential need for non-exclusive licenses permitting us to utilize technology covered by various patents held by these parties. We could be subject to claims similar to the Texas Instruments, Alcatel and Ricoh claims in the future. Depending on the amount and timing of any unfavorable resolutions of these claims, our future results of operations or cash flows could be materially adversely affected in a particular period. There can be no guaranty that the aggregate effect of any such claims will not have a material adverse effect on our business, financial condition or results of operations.

WE MAY NEED TO RAISE ADDITIONAL CAPITAL WHICH MIGHT NOT BE AVAILABLE OR WHICH, IF AVAILABLE, COULD BE ON TERMS ADVERSE TO OUR COMMON STOCKHOLDERS.

We expect that our current cash and cash equivalents, short-term investment balances and cash generated from operations will be adequate to meet our working capital and capital expenditure needs for at least twelve months. After that, we may need to raise additional funds, and we cannot be certain that we will be able to obtain additional financing on favorable terms, if at all. We may also require additional capital for the acquisition of businesses, products and technologies that are complementary to ours. Further, if we issue equity securities, the ownership percentage of our stockholders would be reduced, and the new equity securities may have rights, preferences or privileges senior to those existing holders of our common stock. If we cannot raise needed funds on acceptable terms, we may not be able to develop or enhance our products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements, which could seriously harm our business, operating results and financial condition.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The primary objective of our investment activities is to preserve principal while concurrently maximizing the income we receive from our investments without significantly increasing risk. Some of the securities that we may invest in may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the current value of the principal amount of our investment will decline. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and short-term investments in a variety of securities, including commercial paper, money market funds, government and non-government debt securities and certificates of deposit. In general, money market funds are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate. As of December 31, 2001, all of our investments were in money market funds, high quality commercial paper, government and non-government debt securities and auction rate preferred stock. A hypothetical 100 basis point increase in interest rates would result in an approximate \$88,000 decrease in the fair value of our available-for-sale securities as of December 31, 2001. See Note 3 of notes to the consolidated financial statements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CENTILLIUM COMMUNICATIONS, INC. INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Financial Statements

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REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders
Centillum Communications, Inc.

We have audited the accompanying consolidated balance sheets of Centillum Communications, Inc. as of December 31, 2001 and 2000, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2001. Our audits also included the financial statement schedule listed in the Index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Centillum Communications, Inc. at December 31, 2001 and 2000, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Ernst & Young LLP
San Jose, California
March 12, 2002

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	Years ended December 31,		
	2001	2000	1999
Net product revenues	\$ 159,207	\$ 56,324	\$ 2,509
Technology development revenues	300	150	1,235
Total net revenues	159,507	56,474	3,744
Cost of revenues	79,781	32,251	3,118
Gross profit	79,726	24,223	626
Operating expenses:			
Research and development	59,034	41,879	13,357
Sales and marketing	17,953	15,497	3,823
General and administrative	13,879	15,846	4,227
Amortization of goodwill and other acquisition-related intangibles	3,285	827	—
In-process research and development	7,422	—	—
Total operating expenses	101,573	74,049	21,407
Operating loss	(21,847)	(49,826)	(20,781)
Interest income	3,620	4,170	1,274
Interest expense	(76)	(334)	(242)
Loss on long-term investment	(990)	—	—
Loss before provision for income taxes	(19,293)	(45,990)	(19,749)
Provision for income taxes	400	8	—
Net loss	\$ (19,693)	\$ (45,998)	\$ (19,749)
Basic and diluted net loss per share	\$ (0.59)	\$ (2.00)	\$ (2.23)
Shares used to compute basic and diluted net loss per share	33,495	22,950	8,842

See accompanying notes.

CONSOLIDATED BALANCE SHEETS

(In thousands, except share data)

	December 31,	
	2001	2000
Assets		
Current assets:		
Cash and cash equivalents	\$ 93,724	\$ 71,240
Short-term investments	17,129	16,444
Accounts receivable—net of allowance for doubtful accounts of \$1,026 at December 31, 2001 and \$932 at December 31, 2000	4,042	16,883
Inventories	9,356	9,183
Other current assets	2,147	1,552
Total current assets	126,398	115,302
Property and equipment, net	11,483	8,355
Goodwill and other intangible assets, net	6,085	3,200
Other assets	242	1,086
Total assets	<u>\$ 144,208</u>	<u>\$ 127,943</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 7,854	\$ 13,133
Accrued payroll & related expenses	3,272	2,578
Accrued liabilities	11,268	4,277
Accrued taxes	77	8
Deferred revenue	—	200
Long-term debt—current portion	264	367
Total current liabilities	22,735	20,563
Long-term debt	—	221
Other liabilities	315	289
Commitments and contingencies		
Shareholders' equity:		
Preferred stock; \$0.001 par value:		
Authorized shares: 10,000,000; Issued and outstanding shares: none at December 31, 2001 and 2000	—	—
Common stock; \$0.001 par value:		
Authorized shares: 10,000,000; Issued and outstanding shares: 34,576,062 at December 31, 2001, 33,030,114 at December 31, 2000	35	33
Additional paid-in capital	229,224	208,520
Stockholder note receivable	—	(430)
Accumulated other comprehensive income	66	8
Deferred compensation	(8,734)	(21,521)
Accumulated deficit	(99,433)	(79,740)
Total shareholders' equity	121,158	106,870
Total liabilities and shareholders' equity	<u>\$ 144,208</u>	<u>\$ 127,943</u>

See accompanying notes.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Deferred Compensation	Stockholders' Note Receivable	Accumulated Deficit	Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount						
	Balance at December 31, 1998	7,839,482	\$ 8	8,505,600						
Noncash issuance of common stock for services and other	—	—	97,643	—	173	—	—	—	—	173
Cash proceeds from issuance of Series C convertible preferred stock, net of issuance costs	7,610,754	7	—	—	35,568	—	—	—	—	35,575
Exercise of options to purchase common stock for cash and notes	—	—	1,715,598	1	1,147	—	(430)	—	—	718
Deferred compensation related to stock option grants	—	—	—	—	19,701	(19,701)	—	—	—	—
Amortization of deferred compensation	—	—	—	—	—	4,104	—	—	—	4,104
Net loss	—	—	—	—	—	—	—	(19,749)	—	(19,749)
Unrealized loss on available-for-sale investments	—	—	—	—	—	—	—	—	(25)	(25)
Total comprehensive net loss	—	—	—	—	—	—	—	—	—	(19,774)
Balance at December 31, 1999	15,450,236	15	10,318,841	10	80,270	(16,043)	(430)	(33,742)	(25)	30,055
Noncash issuance of common stock for services	—	—	53,900	—	2,333	—	—	—	—	2,333
Exercise of options to purchase common stock for cash	—	—	1,939,010	2	2,551	—	—	—	—	2,553
Issuance of shares under Employee Stock Purchase Plan	—	—	52,196	—	801	—	—	—	—	801
Deferred compensation related to stock option grants	—	—	—	—	31,088	(31,088)	—	—	—	—
Amortization of deferred compensation	—	—	—	—	—	25,610	—	—	—	25,610
Conversion of preferred stock to common stock	(15,450,236)	(15)	15,450,236	15	—	—	—	—	—	—
Issuance of common stock for cash, net of issuance costs of \$7,182	—	—	5,200,000	6	91,477	—	—	—	—	91,483
Exercise of warrants to purchase common stock	—	—	15,931	—	—	—	—	—	—	—
Net loss	—	—	—	—	—	—	—	(45,998)	—	(45,998)
Unrealized gain on available-for-sale investments	—	—	—	—	—	—	—	—	33	33
Total comprehensive net loss	—	—	—	—	—	—	—	—	—	(45,965)
Balance at December 31, 2000	—	—	33,030,114	33	208,520	(21,521)	(430)	(79,740)	8	106,870
Noncash issuance of common stock for services	—	—	10,000	—	70	—	—	—	—	70
Exercise of options to purchase common stock for cash	—	—	557,412	1	2,394	—	—	—	—	2,395
Cash proceeds from payments on stockholder note receivable	—	—	—	—	—	—	430	—	—	430
Issuance of shares under Employee Stock Purchase Plan	—	—	164,621	—	1,883	—	—	—	—	1,883
Deferred compensation related to stock option grants, net of terminations	—	—	—	—	(1,958)	1,958	—	—	—	—
Amortization of deferred compensation	—	—	—	—	—	15,346	—	—	—	15,346
Common stock issued in connection with acquisition	—	—	813,915	1	18,315	—	—	—	—	18,316
Acquisition related deferred compensation	—	—	—	—	—	(4,517)	—	—	—	(4,517)
Net loss	—	—	—	—	—	—	—	(19,693)	—	(19,693)
Unrealized loss on available-for-sale investments	—	—	—	—	—	—	—	—	58	58
Total comprehensive net loss	—	—	—	—	—	—	—	—	—	(19,635)
Balance at December 31, 2001	—	\$ —	34,576,062	\$ 35	\$229,224	\$ (8,734)	\$ —	\$(99,433)	\$ 66	\$121,158

See accompanying notes.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Years ended December 31,		
	2001	2000	1999
Operating Activities			
Net loss	\$ (19,693)	\$ (45,998)	\$ (19,749)
Adjustments to reconcile net loss to net cash used by operating activities:			
Depreciation and leasehold amortization expense	4,245	3,770	2,258
Net loss on retirements of property and equipment	472	—	—
Amortization of deferred compensation	15,346	25,610	4,104
Issuance of common stock for services and other	70	2,333	173
Amortization of goodwill and other acquisition related intangibles	3,285	827	—
Amortization of warrants issued in conjunction with financings	4	6	10
In-process research and development	7,422	—	—
Loss on non-current investment	990	—	—
Changes in operating assets and liabilities:			
Accounts receivable	12,841	(15,968)	(915)
Inventory	(173)	(7,972)	(1,211)
Other current assets	(1,045)	(1,037)	(258)
Other assets	(146)	6	(59)
Working capital line of credit	—	(2,044)	2,044
Accounts payable	(5,280)	12,323	682
Accrued payroll and related expenses	694	1,678	512
Accrued liabilities	6,861	3,960	154
Deferred revenue	(200)	78	47
Other liabilities	95	217	53
Net cash provided by (used in) operating activities	25,788	(22,211)	(12,155)
Investing Activities			
Purchases of short-term investments	(28,642)	(29,045)	(27,626)
Sales and maturities of short-term investments	28,015	37,745	7,600
Purchases of property and equipment	(7,252)	(7,594)	(3,005)
Acquisitions, net of cash acquired	258	—	—
Purchases of intangibles and other long-term assets	—	(5,017)	—
Net cash (used in) investing activities	(7,621)	(3,911)	(23,031)
Financing Activities			
Principal payments on capital lease	—	(164)	(223)
Principal payments on long-term debt obligations	(391)	(513)	(498)
Proceeds from issuance of common stock, net of repurchases	4,278	94,837	718
Proceeds from stockholder note receivable	430	—	—
Proceeds from issuance of preferred stock	—	—	35,572
Net cash provided by financing activities	4,317	94,160	35,575
Net increase in cash and cash equivalents	22,484	68,038	386
Cash and cash equivalents at beginning of period	71,240	3,202	2,816
Cash and cash equivalents at end of period	\$ 93,724	\$ 71,240	\$ 3,202
Supplemental Disclosures of Cash Flow Information			
Cash paid for interest	\$ 76	\$ 327	\$ 244
Cash paid for income taxes	\$ 331	\$ —	\$ —
Supplemental Disclosures of Non-Cash Transactions			
Issuance of common stock for note receivable	\$ —	\$ —	\$ 430
Deferred compensation related to stock option grants, net of terminations	\$ 2,559	\$ 31,088	\$ 19,701

See accompanying notes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES NATURE OF OPERATIONS:

Centillum Communications, Inc. (Centillum or the Company) was incorporated in California on February 21, 1997 for the purpose of developing and marketing semiconductor devices for equipment manufacturers serving the broadband communications markets. The Company has focused initially on developing products designed for the Digital Subscriber Line (DSL) and Voice over Packet markets.

Our revenues currently are derived from the sale of our DSL and Voice over Packet products, which include the CopperLite CO, CopperLite CPE, Optimizer and Entropia families of products.

On May 24, 2000, the Company issued 4.0 million shares of common stock in a registered underwritten initial public offering and 600,000 shares of common stock in a concurrent private placement at a price of \$19.00 per share. On June 5, 2000, the Company sold an additional 600,000 shares pursuant to the underwriters' over-allotment option granted in connection with its initial public offering. Net proceeds from these offerings were \$91.5 million and are being used for general working capital purposes and selected asset purchases.

Centillum has incurred significant losses since inception and, as of December 31, 2001, had an accumulated deficit of \$99.4 million including a net loss for the year ended December 31, 2001 of \$19.7 million.

Principles of Consolidation: The consolidated financial statements include all the accounts of the Company and those of its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated.

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

Revenue Recognition: Revenues related to product sales are generally recognized when the products are shipped to the customer, title has transferred and no significant obligations remain. In circumstances where the Company has not shipped the final production version of a product, or when the customer has delayed its acceptance of our product, the Company defers recognition of the revenue until acceptance. Under certain circumstances the Company allows its customers to return product. A provision is made for estimated product returns. Our products are warranted to be free from defect for a period of one year. A provision is made for warranty costs as shipments are made. To date, such costs have not been material.

The Company has also performed research and product development work under best efforts technology development agreements. Revenues under technology development agreements are recognized when applicable contractual milestones have been met, including deliverables, and in any case, do not exceed the amount that would be recognized using the percentage-of-completion method. The costs associated with our technology development revenues are closely related to the costs of our ongoing research and development activities. Generally, the incremental costs of providing any deliverables under our technology development arrangements are not easily distinguishable from the costs of our ongoing activities, are not significant and have been included in research and development in our statements of operations.

Concentrations of Credit Risk: Financial instruments that potentially subject the Company to significant concentration of credit risk consist principally of cash, cash equivalents, short-term investments and accounts receivable. The Company places its cash, cash-equivalents and short-term investments in several high credit-quality financial institutions. The Company is exposed to credit risk in the event of default by these institutions to the extent of the amount recorded on the balance sheet. Accounts receivable are billed in U.S. currency derived from revenues earned from customers primarily located in Japan and the United States. The Company performs ongoing credit evaluations of its customers' financial condition and generally does not require collateral, but obtains letters of credit or prepayments as deemed necessary. The Company maintains reserves for potential credit losses. Management judgment is used to estimate the required reserves. Actual results could differ from those estimates.

Customer Concentrations: The following customers accounted for 10% or more of total accounts receivable:

	December 31,	
	2001	2000
Sumitomo Electric Industries	61%	30%
Lucent Technologies	* %	19%
NEC	20%	10%

*represents less than 10% of total accounts receivable.

Supplier Concentrations: The Company depends on a single or limited number of outside contractors to fabricate, assemble and test our semiconductor devices. The Company generally sources its production through standard purchase orders and has wafer supply and assembly and test agreements with outside contractors. While the Company seeks to maintain a sufficient level of supply and endeavors to maintain ongoing communications with suppliers to guard against interruptions or cessation of supply, business and results of operations could be adversely affected by a stoppage or delay of supply, substitution of more expensive or less reliable products or services, receipt of defective semiconductor devices, an increase in the price of products or inability to obtain reduced pricing from suppliers in response to competitive pressures.

Cash Equivalents and Short-Term Investments: The Company invests its excess cash in money market accounts and debt instruments and considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents. Cash equivalents are recorded at cost, which approximates fair value.

The Company's investments in marketable equity securities and all debt securities are classified as available-for-sale at the time of purchase and the Company periodically reevaluates such designation. At December 31, 2001 and 2000, all of the Company's investments in debt securities were classified as available-for-sale, with changes in market value recorded as unrealized gains and losses in accumulated other comprehensive income until their disposition. Realized gains and losses and declines in value judged to be other than temporary on available-for-sale securities are included in interest income and were insignificant for all periods presented. The cost of securities sold is based on the specific-identification method.

Inventories: Inventories are stated at the lower of cost (first in, first out) or market. The components of inventories are as follows (in thousands):

	December 31,	
	2001	2000
Work-in-process	\$ 6,600	\$ 5,393
Finished goods	2,756	3,790
	<u>\$ 9,356</u>	<u>\$ 9,183</u>

Property and Equipment: Property and equipment are carried at cost less accumulated depreciation. Property and equipment are depreciated for financial reporting purposes using the straight-line method over the assets' estimated useful lives of three years. Leasehold improvements are amortized using the straight-line method over the shorter of the useful lives of the assets or the terms of the leases. Property and equipment are as follows (in thousands):

	December 31,	
	2001	2000
Equipment and software	\$ 19,399	\$13,900
Furniture and fixtures	914	657
Leasehold improvements	1,107	349
Construction in progress	387	791
	<u>21,807</u>	<u>15,697</u>
Accumulated depreciation and amortization	(10,324)	(7,342)
Property and equipment, net	<u>\$ 11,483</u>	<u>\$ 8,355</u>

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The Company measures the recoverability of long-lived assets by comparison of the carrying amount to undiscounted future net cash flows. If the Company considers such assets to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the long-lived assets exceeds their fair market value, as determined by discounted cash flows.

Software Development Costs: Costs incurred in the research and development of the software embedded in our products are expensed as incurred until technological feasibility has been established. The Company believes its current process for developing software is essentially completed concurrently with the establishment of technological feasibility, which is evidenced by a working model that includes the semiconductor device and embedded software; accordingly, development costs incurred after the establishment of technological feasibility have not been material and, therefore, have been expensed.

Advertising Costs: The Company expenses advertising costs as incurred. These costs were not material and are included in sales and marketing expense.

Shipping and Handling: The cost of shipping products to customers is not material, and is included in cost of goods sold.

Foreign Currency Accounting: The United States dollar is the functional currency for all foreign operations. The effect on the consolidated statements of operations of transaction and translation gains and losses is insignificant for all years presented.

Fair Value of Financial Instruments: The Company has evaluated the estimated fair value of financial instruments. The amounts reported for cash and cash equivalents, accounts receivable, short-term borrowings, accounts payable and accrued expenses approximate the fair value due to their short maturities. Investment securities are reported at their estimated fair value based on quoted market prices. Realized gains and losses from the Company's investments are insignificant.

Goodwill and Other Intangible Assets: Goodwill represents the excess of the purchase price paid over the fair value of tangible and identifiable intangible net assets acquired in business acquisitions. Identifiable intangible assets consist primarily of assembled workforce. In the event that facts and circumstances indicate that the carrying value of goodwill and intangible assets may be impaired, an evaluation of recoverability would be performed. If an evaluation is required, the fair value associated with the asset would be compared to the asset's carrying amount to determine if a write-down may be required. Goodwill and other intangible assets are stated net of accumulated amortization and are amortized on a straight-line basis over their expected useful lives of between 24 and 48 months. Goodwill and other intangible assets are as follows (in thousands):

	December 31,	
	2001	2000
Goodwill	\$ 7,473	\$ 1,657
Other purchased intangibles	2,724	2,370
	<u>10,197</u>	<u>4,027</u>
Less accumulated amortization	(4,112)	(827)
Goodwill and other intangible assets, net	<u>\$ 6,085</u>	<u>\$ 3,200</u>

Net Loss Per Share: Basic and diluted net loss per share have been computed using the weighted average number of shares of common stock outstanding during the period, less shares subject to repurchase. The following table presents the computation of basic and diluted net loss per share (in thousands, except per share amounts):

	Years ended December 31,		
	2001	2000	1999
Net loss	\$ (19,693)	\$ (45,998)	\$ (19,749)
Basic and diluted:			
Weighted average shares of common stock outstanding	33,909	24,405	9,363
Less weighted average shares subject to repurchase	414	1,455	521
Weighted average shares used in computing			
basic and diluted net loss per share	<u>33,495</u>	<u>22,950</u>	<u>8,842</u>
Basic and diluted net loss per share	<u>\$ (0.59)</u>	<u>\$ (2.00)</u>	<u>\$ (2.23)</u>

The Company has excluded all outstanding warrants, stock options and shares subject to repurchase by the Company from the calculation of basic and diluted net loss per share because these securities are antidilutive for all periods presented. Options and warrants to purchase 5,903,370, 7,809,376 and 3,417,007 shares of common stock have been excluded for the years ended December 31, 2001, 2000 and 1999.

Stock-Based Compensation: As described in Note 7, the Company has elected to account for its employee stock plans in accordance with Accounting Principles Board Opinion No. 25, "Accounting For Stock Issued to Employees" (APB Opinion No. 25), and to adopt the disclosure-only provisions as required under statement of Financial Accounting Standards No. 123, "Accounting For Stock-Based Compensation" (FAS 123).

The Company accounts for stock issued to non-employees in accordance with the provisions of FAS 123 and Emerging Issues Task Force Issue No. 96-18, "Accounting for Equity Instruments That are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services." Direct grants of shares of common stock are made to certain advisors and consultants to the Company for past services with no vesting or future performance obligations. The fair value of such grants is immediately charged to expense in accordance with EITF 96-18.

New Accounting Pronouncements: In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities" (FAS 133). FAS 133 establishes accounting methods for derivative financial instruments and hedging activities related to those instruments as well as other hedging activities. The Company adopted FAS 133 as of January 1, 2001. Because the Company does not currently hold any derivative instruments and does not engage in hedging activities, the adoption of FAS 133 did not have a material impact on the Company's financial position or results of operations.

In June 2001, the Financial Accounting Standards Board issued Statements of Financial Accounting Standards No. 141, "Business Combinations" (FAS 141), and No. 142, "Goodwill and Other Intangible Assets" (FAS 142). FAS 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001. FAS 141 also includes guidance on the initial recognition and measurement of goodwill and other intangible assets arising from business combinations completed after June 30, 2001. FAS 142 prohibits the amortization of goodwill and intangible assets with indefinite useful lives. FAS 142 requires that these assets be reviewed for impairment at least annually. Intangible assets with finite lives will continue to be amortized over their estimated useful lives.

The Company will apply FAS 142 beginning in the first quarter of fiscal 2002. Application of the nonamortization provisions of FAS 142 is expected to result in an increase in net income of \$2.8 million (\$0.08 per share) in fiscal 2002. The Company will reclassify an assembled workforce intangible asset with an unamortized balance of \$644,000 to goodwill at the date of adoption. The Company will test goodwill for impairment using the two-step process prescribed in FAS 142. The first step is a screen for potential impairment, while the second step measures the amount of the impairment, if any. The Company expects to perform the first of the required impairment tests of goodwill and indefinite lived intangible assets as of January 1, 2002 in the second quarter of fiscal 2002. Any impairment charge resulting from these transitional impairment tests will be reflected as the cumulative effect of a change in accounting principle in the second quarter of 2002. The Company has not yet determined what the effect of these tests will be on the earnings and financial position of the Company.

In August 2001, the FASB issued FAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (FAS 144), which addresses financial accounting and reporting for impairment or disposal of long-lived assets and is effective January 1, 2002. FAS 144 supersedes FAS 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of", and the accounting and reporting provisions relating to the disposal of segments of a business under Accounting Principles Board Opinion No. 30. The Company does not expect that the adoption of FAS 144 will have a significant impact on its financial statements.

NOTE 2. ACQUISITION AND ASSET PURCHASE

Acquisition: On January 5, 2001, the Company completed its acquisition of vEngines, Inc. ("vEngines"). vEngines developed high-density voice processing semiconductor products, which bridge circuit switched voice and packet-based data networks. This technology compresses voice traffic, converting it into digital packets, which can then travel on data networks. vEngines' targeted customer base included communications equipment manufacturers that provide carrier and access voice gateways and remote access servers.

Under the terms of the purchase agreement, 813,915 shares of the Company's common stock, with an aggregate value of approximately \$17.1 million, were exchanged for all of the issued and outstanding capital stock of vEngines. In addition, all of the outstanding options to purchase shares of vEngines' capital stock were exchanged for options to purchase 58,628 shares of our common stock with an aggregate fair value of approximately \$1.2 million. The Company valued the common stock and outstanding options exchanged in the transaction as follows:

<u>Security Exchanged</u>	<u>Valuation Methodology</u>
Common stock—not subject to repurchase	Fair value of Company's stock
Common stock—subject to repurchase	Black-Scholes option pricing model
Options	Black-Scholes option pricing model

Including direct acquisition costs of approximately \$523,000, the aggregate purchase price of vEngines was approximately \$18.8 million. The acquisition has been accounted for using the purchase method of accounting and accordingly, the accompanying financial statements include the results of operations of vEngines subsequent to the acquisition date.

The Company allocated the purchase price of vEngines as follows (in thousands):

In-process research and development	\$ 7,422
Acquisition related deferred compensation	4,517
Fair value of assets acquired and liabilities assumed	730
Assembled workforce	354
Goodwill	<u>5,816</u>
Total	<u>\$18,839</u>

The portion of the purchase price allocated to purchased in-process research and development was \$7.4 million and was valued based on net cash flows over four years, discounted at a cost of capital of 25% to reflect the uncertainty of the products' future use. The entire amount of \$7.4 million was expensed on acquisition because the technological feasibility of products under development had not been established and no future alternative uses existed. The specific products under development using vEngines technology have been discontinued; however, certain aspects of the technologies have been incorporated into the Company's Voice-over-Packet solutions.

The Company recorded acquisition-related deferred compensation of \$4.5 million as unearned stock-based compensation. This amount represents the portion of the purchase consideration related to shares issued contingent on continued employment of certain employee stockholders and the intrinsic value of stock options assumed that become exercisable as future services are provided by employees. The compensation is being recognized over the related employment period, using the graded vesting method, which results in acceleration of amortization expense for the overall award. A total of \$2.7 million of expense was recognized for the year ended December 31, 2001 and has been included in amortization of deferred compensation.

Goodwill and the assembled workforce are amortized on a straight-line basis over their expected useful lives of four and two years, respectively. Beginning January 1, 2002, upon adoption of FAS 142, the Company will no longer amortize goodwill; rather, goodwill will be evaluated for impairment at least on an annual basis.

Pro-forma results of operations have not been presented because the pro-forma impact of the acquisition was not material to the Company's results of operations and financial position for the year ended December 31, 2001.

Asset Purchase: In June 2000, the Company acquired for cash consideration certain assets from Avio Digital Inc. and entered into employment agreements with key employees of Avio Digital Inc. The Company has assigned a portion of the purchase price to identifiable tangible and intangible assets based on their fair values. The excess of the purchase price over the identifiable assets has been recorded as intangible assets and goodwill in the financial statements.

NOTE 3. CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

The estimated fair market values of cash equivalents and short-term investments are based on quoted market prices.

Cash equivalents and short-term investments as of December 31, 2001 and 2000 were as follows (in thousands):

	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Market Value
December 31, 2001				
Cash equivalents:				
Money market funds	\$ 88,359	\$ —	\$ —	\$ 88,359
Obligations of U.S. government and affiliated agencies	747	—	—	747
	<u>89,106</u>	<u>—</u>	<u>—</u>	<u>89,106</u>
Short-term investments:				
Corporate debt securities	475	5	—	480
Obligations of U.S. government and affiliated agencies	16,121	63	(2)	16,182
Certificates of deposit	467	—	—	467
	<u>17,063</u>	<u>68</u>	<u>(2)</u>	<u>17,129</u>
Total cash equivalents and short-term investments	<u>\$106,169</u>	<u>\$ 68</u>	<u>\$ (2)</u>	<u>\$106,235</u>
December 31, 2000				
Cash equivalents:				
Money market funds	\$ 65,125	\$ —	\$ —	\$ 65,125
Corporate debt securities	997	—	(1)	996
	<u>66,122</u>	<u>—</u>	<u>(1)</u>	<u>66,121</u>
Short-term investments:				
Commercial paper	990	—	—	990
Corporate debt securities	1,974	6	—	1,980
Obligations of U.S. government and affiliated agencies	11,000	3	—	11,003
Auction rate preferred stock and other	2,000	—	—	2,000
Certificates of deposit	471	—	—	471
	<u>16,435</u>	<u>9</u>	<u>—</u>	<u>16,444</u>
Total cash equivalents and short-term investments	<u>\$ 82,557</u>	<u>\$ 9</u>	<u>\$ (1)</u>	<u>\$ 82,565</u>

The following is a summary of amortized costs and estimated fair values of available-for-sale debt securities by contractual maturity as of December 31, 2001 (in thousands):

	Amortized Cost	Estimated Fair Value
Amounts maturing within one year	\$ 16,810	\$ 16,878
Amounts maturing after one year, within three years	1,000	998
Total available-for-sale	17,810	17,876
Less amounts classified as cash and cash equivalents	(747)	(747)
	<u>\$ 17,063</u>	<u>\$ 17,129</u>

NOTE 4. LOSS ON NON-CURRENT INVESTMENT

Management monitors and evaluates the realizable value of its non-current equity investment and if events and circumstances indicate that the decline in value of this asset is other-than-temporary, the Company writes the carrying value down to estimated fair value. In June 2001, in connection with the ongoing evaluation of its non-current equity investment, management recorded a non-cash charge of \$990,000 to write down the basis of the investment to zero as a result of impairment in the value of this asset. In January 2002, we sold this non-current equity investment for \$440,000 and will report this as a gain in the first quarter of 2002.

NOTE 5. LONG-TERM DEBT OBLIGATIONS

In April 1998, the Company entered into an agreement with a bank and a financial institution which allows the Company to make multiple draws up to \$1,000,000 for the purchase of equipment. The facility bears interest at 7.30% at December 31, 2001 and 2000.

Draws under the facility are payable via principal and interest payments made ratably over a forty-two month period from the initial draw date. The Company had approximately \$132,000 and \$433,000 outstanding against the equipment facility as of December 31, 2001 and 2000, respectively, and no remaining amount was available as the aggregate draw under the facility had reached \$1,000,000 in fiscal 1999. At the end of the equipment facility's term, the Company is obligated to make an additional payment of total facility draws multiplied by 15% (\$150,000 as of December 31, 2001 and 2000). The Company is recording the additional payment as interest expense over the life of the related long-term obligation. The Company has accrued approximately \$132,000 and \$89,000 relating to this additional payment as of December 31, 2001 and 2000, respectively.

In conjunction with the equipment facility described above, the Company issued a warrant to the bank and to the financial institution to purchase 1,800 and 9,450 shares, respectively, of the Company's common stock at an exercise price of \$4.00 per share. The warrants are immediately exercisable and will expire in May 2005. The fair value is not material for reporting purposes. On June 2, 2000, 1,800 of these warrants were exercised.

In September 1997, the Company negotiated a \$1,000,000 term loan with a bank to finance equipment purchases. The term loan had an interest rate equal to the bank's prime rate plus 0.25% per annum (9.75% at December 31, 2000). The note was payable via monthly interest payments until April 1998 at which time the Company began making thirty-six equal monthly payments of principal and interest. As of December 31, 2000, the Company had approximately \$70,000 outstanding against the term loan. In the first quarter of 2001, the outstanding balance was paid in full in accordance with the terms of the loan.

In conjunction with the term loan described above, the Company issued a warrant for the purchase of 5,000 shares of the Company's Series B3 convertible preferred stock at an exercise price of \$4.00 per share. The warrant was immediately exercisable and was exercised in full on June 2, 2000. The fair value is not material for reporting purposes.

Outstanding borrowings under the long-term debt obligations are secured by all of the Company's assets. The long-term debt obligations contain affirmative and negative covenants and will, among other things, limit the Company's ability to incur additional debt, pay cash dividends, or purchase or sell certain assets. The obligations also require the Company to restrict certain acquisitions, mergers, consolidations or similar transactions.

The Company's long-term debt obligation at December 31, 2001 of \$264,000 matures in 2002.

NOTE 6. COMMITMENTS AND CONTINGENCIES

The Company leases its facilities under operating leases expiring through 2009. Rental expense was approximately \$2.2 million, \$1.3 million and \$642,000 for the years ended December 31, 2001, 2000 and 1999, respectively. Additionally, the Company leases certain software under operating leases expiring through December 2002.

In July 1997, the Company issued a warrant in conjunction with a capital lease agreement. The warrant is immediately exercisable and allows the holder to purchase 10,500 shares of the Company's Series B3 convertible preferred stock at an exercise price of \$4.00 per share. The warrant was exercised on July 11, 2000. The fair value assigned to the warrant was not material for financial reporting purposes.

Future minimum lease payments under the Company's operating leases at December 31, 2001 are as follows (in thousands):

2002	\$ 7,031
2003	4,086
2004	1,121
2005	713
2006	51
Thereafter	57
Total minimum payments	<u>\$13,059</u>

The Company does not own or operate a fabrication facility, and foundries located in Asia currently supply substantially all of its wafer requirements. The Company's purchase obligations to these foundries are based on wafer supply agreements or non-cancelable purchase orders. As of December 31, 2001, the Company's non-cancelable purchase obligation is \$4.6 million.

The semiconductor and telecommunications industries are characterized by substantial litigation regarding patent and other intellectual property rights. From time to time, the Company receives various inquiries or claims in connection with these rights and may become party to associated claims. In certain cases, management has accrued estimates of the amounts it expects to pay upon resolution of such matters and such amounts are included in accrued liabilities. Should the company not be able to secure the terms it expects, these estimates may change and will be recognized in the period in which they are identified. Although the ultimate outcome of such inquiries is not presently determinable, management believes that the resolution of these matters will not have a material adverse effect on the Company's financial position or results of operations.

NOTE 7. STOCKHOLDERS' EQUITY

Preferred Stock: The Board of Directors has the authority, without any further vote or action by the stockholders, to provide for the issuance of 10,000,000 shares of preferred stock from time to time in one or more series with such designation, rights preferences and limitations as the Board of Directors may determine, including the consideration received therefore, the number of shares comprising each series, dividend rates, redemption provisions, liquidation preferences, redemption fund provisions, conversion rights and voting rights, all without the approval of the holders of common stock.

Common Stock Reserved: Common stock reserved is as follows:

	December 31,	
	2001	2000
Common stock options	5,893,920	7,799,926
Common stock warrants	9,450	9,450
	<u>5,903,370</u>	<u>7,809,376</u>

Deferred Compensation: During the years ended December 31, 2001, 2000 and 1999, the Company recorded deferred compensation, net of adjustments for employee terminations, of approximately \$2.6 million, \$31.1 million and \$19.7 million, respectively. This deferred compensation represents the difference between the grant price and the deemed fair value for financial statement reporting purposes of the Company's common stock options granted during these periods. Deferred compensation expense is being amortized using the graded vesting method, in accordance with FAS 123 and FAS Interpretation No. 28, over the vesting period of each respective option, generally four years. Under the graded vesting method, each option grant is separated into portions based on their vesting terms, which results in acceleration of amortization expense for the overall award. The accelerated amortization pattern results in expensing approximately 59% of the total award in year one, 25% in year two, 12% in year three and 4% in year four.

Deferred compensation expense was allocated among the associated expense categories as follows (in thousands):

	<u>Years ended December 31,</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>
Cost of revenues	\$ 797	\$ 1,459	\$ 139
Research and development	7,992	10,722	1,744
Sales and marketing	2,361	5,075	821
General and administrative	4,196	8,354	1,400
	<u>\$ 15,346</u>	<u>\$ 25,610</u>	<u>\$ 4,104</u>

Stockholders' Notes Receivable: In November 1999, the Company issued 215,000 shares of common stock in connection with the exercise of an employee stock option at an exercise price of \$2.00 per share in return for a full recourse note receivable for \$430,000. The note earned interest at an annual interest rate of 6.00% per annum and was paid in full in June 2001.

Stock Options: In March 1997, the Board of Directors approved a stock option plan that authorized the grant of options to purchase shares of the Company's common stock. The plan is administered by the Board of Directors and provides for incentive stock options or nonqualified stock options to be issued to employees, directors and consultants of the Company. Prices for incentive stock options may not be less than the fair value of the common stock at the date of grant. Prices for nonqualified stock options may not be less than 85% of the fair value of the common stock at the date of grant. Options granted prior to May 23, 2000 are immediately exercisable and generally vest over a period of four years from the date of grant. Options granted on or after May 23, 2000 are exercisable when vested and generally vest over a four-year period. Any unvested stock issued is subject to repurchase by the Company at the original issuance price upon termination of the option holder's employment. Unexercised options expire ten years after the date of grant.

In February 2001, the Company adopted a nonstatutory stock option plan that authorized the grant of nonstatutory stock options ("options") to purchase shares of the Company's common stock. Such shares may be authorized, but unissued, or reacquired common stock. The plan is administered by the Board of Directors or any of its Committees and provides for options to be issued to employees and consultants of the Company only and not to officers and directors, except in connection with an officer's initial service to the Company. Options generally vest over a period of four years from the date of grant and prices for such options shall be determined by the plan administrator, with the prices generally being not be less than the fair value of the common stock at the date of grant. Upon termination of the option holder's employment, any unvested stock issued shall revert back to the plan.

In December 2001, the Company offered a voluntary stock option exchange program to its employees and officers. Under the program, participants were able to tender for cancellation stock options that have an exercise price equal to or greater than \$10 per share for replacement options to be granted on a date which is at least six months plus one day from the date of cancellation of the tendered options. The exercise price of the replacement options is expected to be equal to 100 percent of the market price of Centillum's common stock on the grant date of the replacement options. The terms and conditions of the replacement options, including the vesting schedules, will be substantially the same as the terms and conditions of the options cancelled. On December 3, 2001, 5.2 million stock options were tendered for cancellation and are expected to be exchanged for new options on or after June 4, 2002.

The following is a summary of additional information with respect to the stock option plan:

	Options Outstanding		
	Options Available for Grant	Number of Shares	Weighted Average Exercise Price
Balance at December 31, 1998	1,601,250	3,358,257	\$ 0.35
Options authorized	1,500,000	—	—
Options granted	(2,106,600)	2,106,600	\$ 1.80
Options exercised	—	(1,719,348)	\$ 0.67
Options available due to			
repurchase of unvested shares	3,750	—	\$ 0.40
Options canceled	355,252	(355,252)	\$ 0.30
Balance at December 31, 1999	1,353,652	3,390,257	\$ 1.09
Options authorized	5,569,743	—	—
Options granted	(6,988,263)	6,988,263	\$22.45
Options exercised	—	(2,044,234)	\$ 1.40
Options available due to			
repurchase of unvested shares	105,224	—	—
Options canceled	534,360	(534,360)	\$14.71
Balance at December 31, 2000	574,716	7,799,926	\$19.22
Options authorized	7,040,434	—	—
Options granted	(5,059,462)	5,059,462	\$18.81
Options exercised	—	(612,695)	\$ 4.04
Options available due to			
repurchase of unvested shares	55,283	—	—
Options canceled	6,352,773	(6,352,773)	\$27.03
Balance at December 31, 2001	<u>8,963,744</u>	<u>5,893,920</u>	<u>\$12.02</u>

In addition, the following table summarizes information about stock options that were outstanding and exercisable at December 31, 2001:

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)
\$ 0.40 –\$ 5.00	1,453,323	\$ 3.36	7.8	1,426,295	\$ 3.41	3.4
\$ 5.15 –\$ 7.67	1,767,516	\$ 6.90	9.7	164,317	\$ 7.50	6.9
\$10.00 –\$18.00	1,032,936	\$ 12.38	8.6	681,737	\$ 10.25	8.6
\$18.06 –\$22.00	987,763	\$ 19.30	8.6	186,908	\$ 19.14	8.6
\$22.55 –\$68.88	596,340	\$ 29.73	9.2	87,586	\$ 33.28	9.2
\$75.13 –\$75.13	56,042	\$ 75.13	8.6	20,206	\$ 75.13	8.6
\$ 0.40 –\$75.13	<u>5,893,920</u>	<u>\$ 12.02</u>	<u>8.8</u>	<u>2,567,049</u>	<u>\$ 8.21</u>	<u>8.8</u>

Employee Stock Purchase Plan: To provide employees with an opportunity to purchase common stock of the Company through payroll deductions, the Company established the 2000 Employee Stock Purchase Plan and initially reserved 500,000 shares of common stock for issuance to participants. In addition, the plan provides for automatic annual increases on the first day of each of the Company's fiscal years beginning January 1, 2001, equal to the lesser of 400,000 shares or 1% of the Company's outstanding common stock on the date of the annual increase, or a lesser number of shares determined by the Board of Directors. Under the plan, the Company's employees, subject to certain restrictions, may purchase shares of common stock at the lesser of 85 percent of the fair market value at either the beginning or end of each six-month offering period. Under the plan, the Company sold 164,621 and 52,196 shares of common stock during fiscal years 2001 and 2000, respectively.

Stock-Based Compensation: The Company has elected to follow APB Opinion No. 25 and related interpretations in accounting for its employee stock options because, as discussed below, the alternative fair value accounting provided for under FAS 123 requires use of option valuation models that were not developed for use in valuing employee stock options. Under APB Opinion No. 25, when the exercise price of the Company's employee stock options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized.

The option valuation models used to fair value options under FAS 123 were developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected life of the option. Because the Company's employee stock options have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

Pro forma information regarding net loss is required by FAS 123, which requires that the information be determined as if the Company has accounted for its employee stock-based awards under the fair value method of FAS 123. The fair value of the options granted in 1999 was estimated using the minimum-value method and the fair value of the options granted in 2001 and 2000 were estimated using the Black-Scholes method, with the following weighted average assumptions:

	Stock Option Plan			Employee Stock Purchase Plan	Employee Stock Purchase Plan
	2001	2000	1999	2001	2000
Expected life from vest date	2.9 years	3.0 years	4.0 years	6.0 months	6.0 months
Volatility	147%	128%	-	147%	128%
Risk-free interest rate	3.90%	6.28%	5.50%	1.93%	6.28%
Dividend rate	-	-	-	-	-

For purposes of FAS 123 pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting period. Had compensation expense for the Company's stock-based award plans been determined on the fair value at the grant dates for awards under the plan consistent with the method of FAS 123, the Company's net loss would have been increased to the following approximate FAS 123 pro forma amounts (in thousands, except share data):

	Years Ended December 31,		
	2001	2000	1999
FAS 123 Pro forma net loss applicable to common stockholders	\$(70,336)	\$(42,524)	\$(20,075)
FAS 123 Pro forma basic and diluted net loss per share applicable to common shareholders	\$ (2.10)	\$ (1.65)	\$ (2.27)

The options' weighted average grant date fair value, which is the value assigned to the options under FAS 123, was approximately \$7.86, \$16.72 and \$0.36 for the years ended December 31, 2001, 2000 and 1999, respectively. The weighted-average fair value of purchase rights granted under the Employee Stock Purchase Plan in 2001 and 2000 were \$7.93 and \$12.54 per share, respectively.

NOTE 8. INCOME TAXES

The provision for income taxes for the years ended December 31, 2001, 2000 and 1999 consists of the following (in thousands):

	Years Ended December 31,		
	2001	2000	1999
Current:			
Federal	\$ 278	\$ —	\$ —
State	65	—	—
Foreign	57	8	—
	<u>\$ 400</u>	<u>\$ 8</u>	<u>\$ —</u>

The difference between the provision for income taxes and the amount computed by applying the federal statutory income tax rate of 34% to income before taxes is explained as follows (in thousands):

	Years Ended December 31,		
	2001	2000	1999
Tax (benefit) at federal statutory rate	\$(6,560)	\$(15,641)	\$(6,715)
Loss for which no tax benefit is currently recognizable	—	3,414	5,073
Unbenefited foreign losses	—	5,301	—
Amortization of deferred compensation	5,252	6,926	1,642
Purchased in-process research and development and amortization of goodwill and other acquired intangibles	3,640	—	—
Utilization of net operating losses, net of changes in valuation allowance	(2,237)	—	—
Other	305	8	—
Total tax provision	<u>\$ 400</u>	<u>\$ 8</u>	<u>\$ —</u>

As of December 31, 2001, the Company has \$25 million and \$16 million of net operating loss carryforwards for federal and state purposes, respectively. The Company also has federal and state research and development tax credit carryforwards of approximately \$1.5 million and \$400,000, respectively. The net operating losses and federal tax credit carryforwards will expire at various dates beginning in 2005, if not utilized.

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

Deferred taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred taxes consist of the following (in thousands):

	Years Ended December 31,	
	2001	2000
Deferred tax assets:		
Net operating losses	\$9,606	\$14,655
Tax credit carryforwards	1,756	1,793
Reserves and accruals	8,835	4,482
Total deferred tax assets	20,197	20,930
Valuation allowance	(20,197)	(20,930)
Net deferred tax assets	—	—
Net deferred taxes	<u>\$ —</u>	<u>\$ —</u>

Financial Accounting Standards Board Statement No. 109, "Accounting for Income Taxes", provides for the recognition of deferred tax assets if realization of such assets is more likely than not. Based upon the weight of available evidence, which includes the Company's historical operating performance and the reported cumulative net losses to date, the Company has provided a full valuation allowance against its deferred tax assets.

The valuation allowance decreased by approximately \$733,000 for the year ended December 31, 2001 and increased by approximately \$8.6 million and \$7.2 million for the years ended December 31, 2000 and 1999, respectively. The valuation allowance at December 31, 2001 includes approximately \$3.9 million related to stock option deductions, the benefit of which will be recorded in paid-in capital when realized.

NOTE 9. BUSINESS SEGMENT INFORMATION

Through December 31, 2001, the Company's revenues have been primarily derived from one business segment, the sale of broadband communication products for the DSL and VoP markets. The Company sells primarily to original equipment manufacturers and companies in the communications industries.

The Chief Executive Officer has been identified as the Chief Operating Decision Maker (CODM) because he has final authority over resource allocation decisions and performance assessment. The CODM does not receive discrete financial information about any individual components.

The following is a summary of net revenues by major geographic area (in thousands):

	Years ended December 31,		
	2001	2000	1999
Japan	\$138,948	\$17,301	\$ 2,363
North America	16,710	34,451	676
Asia—excluding Japan	3,108	4,587	555
All Other	741	135	150
Total	<u>\$159,507</u>	<u>\$56,474</u>	<u>\$ 3,744</u>

The following customers account for 10% or more of the net revenues:

	Years ended December 31,		
	2001	2000	1999
Sumitomo Electric Industries	48%	20%	34%
NEC	38%	10%	21%
Lucent Technologies	* %	24%	* %
Copper Mountain Networks	* %	12%	* %

*represents less than 10% of net revenues.

NOTE 10. 401(K) PROFIT SHARING PLAN AND TRUST

The Company has adopted a 401(k) Profit Sharing Plan and Trust that allows eligible employees to make contributions subject to certain limitations. The Company may make discretionary contributions based on profitability as determined by the Board of Directors. There was no amount contributed by the Company to the plan for the years ended December 31, 2001, 2000 and 1999.

NOTE 11. QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

Summarized quarterly financial information is as follows (in thousands, except per share data):

	Year 2001 (Three months ended)			
	March 31	June 30	Sept. 30	Dec. 31
Net revenues	\$ 31,855	\$ 46,371	\$ 46,804	\$ 34,477
Cost of revenues	\$ 16,171	\$ 23,315	\$ 23,579	\$ 16,716
Gross profit	\$ 15,684	\$ 23,056	\$ 23,225	\$ 17,761
Operating loss	\$(14,590)	\$ (497)	\$ (1,830)	\$ (4,930)
Net loss	\$(13,457)	\$ (755)	\$ (1,286)	\$ (4,195)
Basic and diluted net loss per share	\$ (0.41)	\$ (0.02)	\$ (0.04)	\$ (0.12)
Shares used to compute basic and diluted net loss per share	32,775	33,426	33,782	33,995

	Year 2000 (Three months ended)			
	March 31	June 30	Sept. 30	Dec. 31
Net revenues	\$ 4,723	\$ 9,752	\$ 17,658	\$ 24,341
Cost of revenues	\$ 3,483	\$ 5,963	\$ 10,057	\$ 12,748
Gross profit	\$ 1,240	\$ 3,789	\$ 7,601	\$ 11,593
Operating loss	\$(10,312)	\$(17,364)	\$(12,424)	\$ (9,726)
Net loss	\$(10,058)	\$(16,783)	\$(10,932)	\$ (8,225)
Basic and diluted net loss per share	\$ (1.03)	\$ (0.89)	\$ (0.35)	\$ (0.26)
Shares used to compute basic and diluted net loss per share	9,808	18,919	31,334	31,738

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

None

PART III**ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

The information required by this item is incorporated by reference from the information under the captions "Information Concerning Solicitation and Voting," "Election for Directors" and "Section 16(A) Beneficial Ownership Reporting Compliance" contained in our definitive proxy statement to be filed no later than May 1, 2002 in connection with solicitation of proxies for our annual meeting of stockholders to be held June 11, 2002 (the "Proxy Statement").

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from the information under the captions "Executive Compensation" and "Compensation of Directors" contained in the Proxy Statement. In addition, Exhibits 10.29 through 10.30 of this report contain recently executed Employment Agreements.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this item is incorporated by reference from the information under the caption "Security Ownership of Certain Beneficial Owners and Management" contained in the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this item is incorporated by reference from the information under the caption "Certain Transactions" contained in the Proxy Statement.

PART IV

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

(A) (1) FINANCIAL STATEMENTS

The Financial Statements required by this item are listed on the Index to Consolidated Financial Statements in Part II, Item 8 of this report.

(A) (2) FINANCIAL STATEMENTS SCHEDULES

The following financial statement schedule of Centillum Communications, Inc. for the years ended December 31, 2001, 2000 and 1999 should be read in conjunction with the Consolidated Financial Statements of Centillum Communications, Inc.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS

Allowance for Doubtful Accounts (in thousands):

	Balances at Beginning of Period	Charged to Costs and Expense	Deductions Write-Offs	Balances at End of Period
Year ended December 31, 1999	\$ —	\$ 150	\$ —	\$ 150
Year ended December 31, 2000	\$ 150	\$ 782	\$ —	\$ 932
Year ended December 31, 2001	\$ 932	\$ 102	\$ (8)	\$ 1,026

All other schedules have been omitted because they are not applicable or are not required or the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto.

(A) (3) EXHIBITS

Exhibit Number	Description
3.1*	Certificate of Incorporation of the Registrant
4.1*	Specimen certificate of common stock
4.2*	Bylaws of the Registrant
10.1*	Form of Indemnification Agreement between the Registrant and each of its directors and officers
10.2**	1997 Stock Plan
10.3**	2000 Employee Stock Purchase Plan
10.5*	Lease, dated August 16, 1999, between the Registrant and Renco Investment Company
10.21*	Foundry Agreement, dated March 7, 2000, between Registrant and United Microelectronics Corporation
10.22*	Assembly and Test Services Agreement, dated February 28, 2000, between Registrant and ST Assembly and Test Services, Ltd.
10.23**	2001 Nonstatutory Stock Option Plan
10.24***	Lease, dated August 28, 2000, between the Registrant and Bedford Property Industries, Inc.
10.25***	Change of Control Severance Agreement between the Registrant and Surendra Mandava dated December 14, 2000
10.26***	Change of Control Severance Agreement between the Registrant and Faraj Aalaei dated December 14, 2000
10.27***	Change of Control Severance Agreement between the Registrant and Shahin Hedayat dated December 14, 2000
10.28***	Change of Control Severance Agreement between the Registrant and Kamran Elahian dated December 14, 2000
10.29	Employment Terms Sheet between the Registrant and Darrel Slack dated December 12, 2001
10.30	Offer letter between the Registrant and Todd DeBonis dated December 13, 2001
21.1	Subsidiaries of the Registrant
23.1	Consent of Ernst & Young LLP, Independent Auditors

* Incorporated by reference to the Exhibits filed with the Registration Statement of Form S-1 (No. 333-30772), declared effective by the Commission on May 23, 2000.

** Incorporated by reference to the Exhibits filed with the Registration Statement of Form S-8 (No. 333-56610), filed with the Commission on March 6, 2001.

*** Incorporated by reference to the Exhibits filed with the Registrant's Annual Report on Form 10-K for the year ended December 31, 2000, filed with the Commission on March 19, 2001.

(B) REPORTS ON FORM 8-K

There were no reports on Form 8-K filed by the Registrant during the fourth quarter of the fiscal year ended December 31, 2001.

(C) EXHIBITS

The Company hereby files as part of this Form 10-K the Exhibits listed in Item 14 (a)(3) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on March 25, 2002.

Centillum Communications, Inc.

By: /s/ Faraj Aalaei

Faraj Aalaei
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Faraj Aalaei</u> Faraj Aalaei	Chief Executive Officer and Director (Principal Executive Officer)	March 25, 2002
<u>/s/ Darrel Slack</u> Darrel Slack	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 25, 2002
<u>/s/ Shahin Hedayat</u> Shahin Hedayat	President and Director	March 25, 2002
<u>/s/ Robert Hawk</u> Robert Hawk	Director	March 25, 2002
<u>/s/ Lip-Bu Tan</u> Lip-Bu Tan	Director	March 25, 2002

DIRECTORS AND OFFICERS

BOARD OF DIRECTORS

Kamran Elahian

Chairman of the Board and
Co-Founder

Faraj Aalaei

CEO and Co-Founder
Centillum Communications, Inc.

Jere Drummond

Vice Chairman (retired)
BellSouth Corp.

Irwin Federman

General Partner
U.S. Venture Partners

Robert Hawk

President and CEO (retired)
U.S. West Multimedia
Communications, Inc.

Shahin Hedayat

President and Co-Founder
Centillum Communications, Inc.

Lip-Bu Tan

Chairman and Founder
Walden International

CORPORATE SECRETARY

Arthur Schneiderman

Partner
Wilson Sonsini Goodrich & Rosati

EXECUTIVES AND OFFICERS

Faraj Aalaei

CEO and Co-Founder

Shahin Hedayat

President and Co-Founder

Todd DeBonis

Vice President, Worldwide Sales

William Mackenzie

Vice President, Operations

Surendra Babu Mandava

Vice President and Co-Founder,
GM, Access & Network Business Unit

Suzan Schanin

Vice President, Human Resources

Darrel Slack

Vice President and CFO

ANNUAL MEETING

*The Annual Meeting of
Stockholders will be held at
the Company's headquarters
in Fremont at 2:00 p.m. PDT
on Tuesday, June 11, 2002.*

LISTING

Centillum Communications' common stock is quoted on the Nasdaq National Market System under the trading symbol CTLM.

AUDITORS

Ernst & Young LLP

San Jose, CA

CORPORATE COUNSEL

Wilson Sonsini Goodrich & Rosati

Palo Alto, CA

INTELLECTUAL PROPERTY COUNSEL

Fenwick & West LLP

Palo Alto, CA

TRANSFER AGENT AND REGISTRAR

Mellon Investor Services LLC

85 Challenger Road

Ridgefield Park, NJ 07660

Telephone: (800) 589-9836

www.melloninvestor.com

ANNUAL REPORT ON FORM 10-K

A copy of the Company's form 10-K, as filed with the Securities and Exchange Commission, is available free of charge on request.

SALES OFFICES

North America

47211 Lakeview Blvd.
Fremont, CA 94538
Tel: 510-771-3700 or
877-879-7500
Fax: 510-771-3500

990 Washington St., Suite 107
Dedham, MA 02026
Tel: 781-251-9650
Fax: 781-251-9125

Asia

Landmark Shiba-koen Building
3rd Floor
Shiba-koen 1-2-6
Minato-ku, Tokyo, Japan 105-0011
Tel: 03-5733-8502
Fax: 03-5401-3660

B1108
Far East International Plaza
317 Xian Xia Road
Shanghai, P.R. China 200051
Tel: 86-21-62350930
Fax: 86-21-62350242

Europe

United Kingdom
+44 1256-842663

DESIGN CENTERS

North America

47211 Lakeview Blvd.
Fremont, CA 94538
3777 Spinnaker Court
Fremont, CA 94538

710 E. Park Blvd., Suite 100
Plano, TX 75074

6767 Old Madison Pike, Suite 265
Huntsville, AL 35806

Asia

#60, Ground Floor
Haleema Centre
60 Feet Road, 5th 'A' Block
Koramangala, Bangalore 560 095
India

C-60, Shivalik, Malviya Nagar
New Delhi 11017
India

Europe

Space Antipolis 9, Font de Cine
2323 Chemin de Saint-Bernard
06225 Vallauris, Cedex, France



CENTILLIUM
COMMUNICATIONS

47211 Lakeview Boulevard

Fremont, CA 94538

Tel: 510.771.3700

Fax: 510.771.3500

Email: info@centillium.com

Web: www.centillium.com