

NETLOGIC MICROSYSTEMS INC  
Form 10-K  
March 11, 2005  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-K**

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2004

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 NO.: 000-50838

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**NETLOGIC MICROSYSTEMS, INC.**

(Exact name of Registrant as specified in its charter)

DELAWARE  
(State or other jurisdiction of incorporation or organization)

77-0455244  
(I.R.S. Employer Identification No.)

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1875 Charleston Road

Mountain View, California 94043

(650) 961-6676

(Address, including zip code, and telephone number, including area code, of the registrant's principal executive offices)

**SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:**

None

**SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:**

**COMMON STOCK, par value \$.01 per share**

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 the 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.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant, based upon the closing sale price of the Common Stock on February 28, 2005 as reported on the Nasdaq National Market, was \$123,857,841. This calculation does not reflect a determination that certain persons are affiliates of the Registrant for any other purpose.

As of February 28, 2005, registrant had outstanding 17,679,857 shares of common stock, its only class of voting or non-voting common equity.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Registrant's proxy statement to be delivered to the stockholders in connection with registrant's 2005 Annual Meeting of Stockholders to be held on or about May 18, 2005, are incorporated by reference into Part III of this Form 10-K. The registrant intends to file its proxy statement within 120 days after its fiscal year end.



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**PART I**

**Forward-looking Statements**

*This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which include, without limitation, statements about the market for our technology, our strategy and competition. Such statements are based upon current expectations that involve risks and uncertainties. Any statements contained herein that are not statements of historical fact may be deemed forward-looking statements. For example, the words believes, anticipates, plans, expects, intends and similar expressions are intended to identify forward-looking statements. Our actual results and the timing of certain events may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such a discrepancy include, but are not limited to, those discussed in Overview, Results of Operations, Liquidity and Capital Resources and Risks Factors below. All forward-looking statements in this report are based on information available to us as of the date hereof and we assume no obligation to update any such forward-looking statements. The information contained in this report should be read in conjunction with our condensed financial statements and the accompanying notes contained herein. Unless expressly stated or the context otherwise requires, the terms we, our, us and NetLogic Microsystems refer to NetLogic Microsystems, Inc.*

**ITEM 1. BUSINESS.**

**Overview**

We are a semiconductor company that designs, develops and markets high performance knowledge-based processors for a variety of advanced Internet, corporate and other networking systems, such as routers, switches, network access equipment and networked storage devices. Knowledge-based processors are integrated circuits that employ an advanced processor architecture and a large knowledge database containing network and network user information to make complex decisions about individual packets of information travelling through the network. Our knowledge-based processors significantly enhance the ability of networking original equipment manufacturers, or OEMs, to supply network service providers with systems offering more advanced functionality for the Internet, such as voice transmission over the Internet, or VoIP, virtual private networks, or VPNs, and streaming video and audio.

Prior to our development of knowledge-based processors, we developed integrated circuits to address basic forwarding functions used in networking systems for the core and enterprise networking markets. We introduced our first product in July 1997, which was sold in limited quantities. To respond to evolving networking requirements, we developed our next generation of products, our network search engines, which featured more advanced processing capabilities. From 1998 to 2001, we introduced several of these network search engine products. During this time, our revenue from these products was low, and we experienced significant net operating losses. In 2000, in response to the dramatic growth in and greater complexity of Internet traffic, we recognized the need to develop more advanced processors to enable higher performance for a variety of advanced networking systems. By 2001, we were able to broaden our customer base to include networking OEMs such as Cisco Systems, Inc., Huawei Technologies Co., Ltd. and Nortel Networks Corporation. In 2002, we introduced our knowledge-based processors, and began substantial production in the second half of 2003, resulting in the majority of our revenue in 2003 and 2004.

Our knowledge-based processors incorporate advanced technologies that enable rapid processing, such as a superscalar architecture, which uses parallel-processing techniques, and deep pipelining, which segments processing tasks into smaller sub-tasks, for higher decision throughput. These technologies enable networking systems to perform a broad range of network-aware processing functions, such as access control for network security, prioritization of traffic flow to maintain quality of service, or QoS, and statistical measurement of Internet traffic for

transaction billing.

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We design our products at the transistor level and use a full-custom layout flow to define how circuits are constructed in silicon. This allows us to optimize circuit design, minimize chip size and reduce power dissipation of our integrated circuits. By minimizing chip size, we are able to optimize the cost of our knowledge-based processors and facilitate the design of our customers' products within smaller enclosures, or form factors.

We provide complete, systems-level solutions that include interface designs and firmware, device driver, packet-processing and knowledge database management application software, design tools and environments and reference designs. By providing a comprehensive systems-level solution, we help networking OEMs reliably introduce next generation networking systems and significantly enhance their time-to-market. These systems-level solutions are provided free-of-charge to our OEM customers to encourage sales of our products.

Our products are designed into systems offered by leading networking OEMs, including Alcatel, ARRIS Group, Inc., Atrica, Inc., Cisco, CloudShield Technologies, Inc., Extreme Networks, Inc., Fujitsu Limited, Hitachi, Ltd., Huawei, Juniper Networks, Inc. and Nortel Networks. We organized our business in 1995 as a California limited liability company and, incorporated in Delaware in 2000.

## **Industry Overview**

### *Networking Market Overview*

The Internet has experienced dramatic growth and evolved significantly due to a sharp increase in the level of worldwide voice, video and data traffic. According to International Data Corporation (IDC, 2003), total worldwide Internet traffic is expected to increase from 180 petabits per day in 2002 to 5,175 petabits per day in 2007. This represents a compound annual growth rate of 95.7%. This growth has been driven primarily by a wider variety of uses for the Internet, an increased amount of digital media content available through the Internet, and more advanced Internet applications. These applications include:

Voice transmission over the Internet, or VoIP;

Video on demand, or VoD;

Streaming video and audio;

Music, picture and video file downloading and sharing;

Email communications; and

E-commerce.

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Due to the rapid growth of voice, video and data traffic, as well as the greater complexity created by the convergence of these types of traffic, there has been significant expansion of the global networking infrastructure using advanced packet-switching protocols, which are the data formats that enable communication among the systems within the network. These networking systems, based upon packet-switching protocols, transport packets of information through the network. The most common packet-switching protocol is the Internet Protocol, or IP.

The Internet infrastructure consists of various networking systems that handle the processing of IP packets. These systems include routers, switches, network access equipment and networked storage devices. An IP packet that is sent from one user's device to another typically travels through a variety of networks that comprise the Internet infrastructure. These types of networks include:

core networks, for long-distance city-to-city communications which may span hundreds or thousands of miles;

enterprise networks, for internal corporate communications, including access to storage environments;

metro networks, for intra-city communications which may span several miles;

edge networks, which link core, metro, enterprise and access networks; and

access networks, which connect individual users to the edge network.



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The following diagram depicts typical network connections within the Internet infrastructure:

IP packets are transferred from one networking system to another through these network connections. Each system within the network and each connected end-user device, such as a computer, is assigned a unique identifier, known as an IP address, which allows these systems and devices to communicate with each other. Decisions on how to handle IP packets are made using the data that is contained in the packet header. The packet header information consists of key data regarding the packet, including the IP address of the system that generated the packet, referred to as the source IP address, and the IP address of the device to which the packet is to be transmitted, referred to as the destination IP address. When a packet arrives at a networking system such as a switch or a router, the packet is processed and decisions about the packet header are made. For example, an IP packet traveling from New York to San Francisco might travel through as many as 15 routers or switches and be processed a number of times by each router or switch. For many networking applications, packet processing must be performed without slowing down the overall flow of communication. Keeping pace with the rate of communication flow is referred to as wire-speed performance.

Transporting a packet from its source to a destination involves a basic class of packet processing commonly known as forwarding. For example, to forward a packet, a switch or router would use a packet processor to extract the header information from an incoming packet and store the information to be transported temporarily in an area known as the buffer. Next, the packet header information, in particular

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the destination IP address, would be analyzed to establish the networking system that the packet should be forwarded to in order to move the packet one step closer to its final destination. Networking OEMs implement packet processor functionality either by developing their own custom integrated circuit solutions, or by using network processors, or NPUs, developed by third parties.

Due to the increased usage of the Internet, as well as the greater complexity of Internet-based applications, the amount of processing required for packets is increasing significantly. These more complex applications require multiple classes of packet processing that depend on both the type of content being transported and the information, or knowledge, of the overall network.

### *Trend Towards Network-aware Processing*

Rapid growth of voice, video and data traffic, as well as the greater complexity created by the convergence of these types of traffic, increasingly challenges OEMs to offer systems that enable network service providers to introduce new services over the Internet, such as VoIP, VPNs, video on demand, streaming video and audio and music file downloading. In particular, networking OEM systems must increasingly use knowledge about the overall network, which includes the method and manner in which networking systems are interconnected as well as traffic patterns and congestion points, connection availability, user-based privileges, priorities and other attributes. Using this knowledge to make complex decisions about individual packets of information involves network awareness, which includes the following:

Preferential transmission of packets based upon assigned priority;

Restrictions on access based upon security designations;

Changes to packet forwarding destinations based upon traffic patterns and bandwidth availability; and

Addition or deletion of information about networks and users.

Network awareness in advanced systems requires multiple classes of packet processing, in addition to forwarding. These additional classes of processing include access control for network security, prioritization of packets to maintain QoS and statistical measurement of Internet traffic for transaction billing. Compared to the basic processing task of forwarding, these additional classes of packet processing require a significantly higher degree of processing of IP packets to enable network awareness, or network-aware processing. To maintain wire-speed performance in a network-aware environment, major networking OEMs require hundreds of millions of packet decisions each second, while also updating the knowledge database up to 100,000 times per second.

Several powerful trends are driving greater demand for network-aware processing:

*Increasing Internet traffic drives the need for higher bandwidth.* New applications continue to emerge, including applications for file sharing and downloading of digital media such as MP3 audio files and digital images such as photographs. These new applications require greater speed for effective transmission, which is driving the need for higher bandwidth. To satisfy these needs, routers, switches and other networking systems must have the ability to make rapid forwarding decisions that determine what further processing should be done for the packet, identify where the packet should be sent to next and rapidly transport the packet to the

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destination port. For example, edge and metro networking speeds have evolved from 1 Gigabit per second, or 1 Gb/s, to 2.5 Gb/s, and are expected to increase to 10 Gb/s over the next several years.

*Increasing network security requires additional packet inspection.* In order to make IP networks secure, security technologies are being deployed at various points within the global networking infrastructure. For example, in the enterprise network, features are being added to secure specific links using VPNs and access control lists. VPNs prevent eavesdropping on a secured communications link that is established between two devices and access control lists enable network service providers to permit or deny access to certain destinations. To implement these features, additional packet inspection is needed, which is

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typically more complex than the basic processing for forwarding decisions. These features require more information to be stored in the knowledge database and to be subsequently extracted for processing.

*Convergence of voice, video and data traffic requires enhanced QoS.* Convergence of voice, video and data traffic requires enhancement of the IP network infrastructure, as these new services have more stringent performance requirements than traditional packet data. For example, delay in the transmission of a packet, or latency, would significantly degrade the quality of voice and video communications. To support more advanced communications, the network needs to treat packets of data in the IP network differently by assigning them a specified QoS level. For example, packets that require time-critical delivery can be assigned a higher priority for transmission, thereby reducing latency.

*Proliferation of Internet-connected devices requires more complex processing capabilities and larger knowledge databases.* Each Internet-connected device, including computers, handheld personal digital assistants and data and video-enabled mobile phones, is assigned an IP address. The significant increase in the number of such devices has led to a corresponding increase in the number of devices that networking systems need to support, requiring larger knowledge databases. In addition, in an effort to accommodate the connection of more devices to the Internet, the networking industry is moving to a new protocol standard, Internet Protocol version 6, or IPv6, which will increase the length of each IP address, requiring significantly more complex network-aware processing to support larger knowledge databases.

The multiplicative effect of these trends leads to a significantly greater need for advanced processing that utilizes overall knowledge of the network to enable network awareness within switches, routers and other networking systems. Higher levels of performance are required to enable advanced processing for a greater variety of packet processing, such as access control for network security, prioritization of packets to maintain QoS and statistical measurement of Internet traffic for transaction billing, in addition to the forwarding functions.

Networking OEMs have used several approaches to enable network awareness in their systems. One approach involves the use of internally designed custom integrated circuit solutions. Other OEMs have chosen to outsource this requirement to merchant integrated circuit suppliers. Networking OEMs use these integrated circuits to analyze and make decisions about an IP packet based on the packet's header information, which is extracted by the OEMs' packet processors. The packet processor inspects the specific implementations of packet-switching protocols and executes specific instructions needed to move the packet through the networking system.

The custom integrated circuit and merchant approaches have both been adequate for the basic decision-making required for forwarding, particularly at lower speeds. However, as the demand for bandwidth and the need to support more advanced Internet applications increases, these approaches are increasingly unable to scale at the pace demanded by advanced applications because of their slower and less efficient processing capability. This creates a bottleneck in the information flow and limits overall system performance. Further, in designing high performance systems, networking OEMs need to address other performance issues, such as power dissipation. Minimizing the power dissipated by integrated circuits is becoming more important for networking systems such as routers and switches, which are increasingly designed in smaller form factors.

Networking OEMs face growing pressure to rapidly introduce new products, reduce their design and manufacturing costs and respond to the growing demand from network service providers for new and advanced services. These OEMs choose to focus on their core competencies in the design and development of certain functionalities within their networking systems, as well as systems-level design and integration. As a result, networking OEMs increasingly seek third party providers of advanced processing solutions that complement their core competencies to enable network awareness within their systems and meet their escalating performance requirements for rapid processing speeds, complex decision-processing capabilities, low power dissipation, small form factor and rapid time-to-market.

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### **Our Solution**

To enable network awareness for a variety of advanced networking systems, such as routers, switches, network access equipment and networked storage devices, we offer high performance knowledge-based processors. Our knowledge-based processors use an advanced processor architecture and a large knowledge database containing network and network user information to make complex decisions about individual packets of information travelling through the network. These features enable advanced processing across a variety of classes of packet processing, including access control for network security, prioritization of packets to maintain QoS and statistical measurement of Internet traffic for transaction billing. In addition, we design our products by connecting individual transistors and we use a full-custom layout flow to define precisely how circuits are constructed in silicon, enabling us to optimize circuit design, minimize chip size and reduce power dissipation of our integrated circuits.

Key features of our solution include:

*Advanced Architecture for High-Speed Performance.* Our knowledge-based processors enable networking OEMs to offer products that process packets at wire-speed performance. Our knowledge-based processors are designed with a superscalar architecture that enables multiple decisions to be processed in parallel. In addition, our knowledge-based processors employ deep pipelining, which segments processing tasks into smaller sub-tasks for higher decision throughput. We use these advanced technologies to enable faster decision throughput in the network. In addition, our knowledge-based processors include features that give access to and support multiple NPUs, allowing more than one NPU to handle packet processing simultaneously. By incorporating our products, networking OEMs are able to process packets more rapidly.

*Expandable Processing Resources.* We offer knowledge-based processors that can process packets using knowledge databases containing up to approximately 512,000 records on a single integrated circuit. Additionally, our customers can interconnect multiple knowledge-based processors, which extends the usable knowledge database to up to approximately four million records. This allows our OEM customers' products to support a range of decision-making capacities that scales with end-user requirements. This feature becomes more critical as the number of devices connected to the Internet increases and networking OEMs deploy IPv6, creating the need for additional processing resources and larger knowledge databases to support longer IP addresses.

*Full-Custom Integrated Circuit Design for Reduced Cost and Low Power Dissipation.* We design our products using full-custom methodologies that allow us to optimize circuit area to implement specific functionality and accommodate larger knowledge databases. Our use of a full-custom layout flow allows for enhanced control of transistor characteristics as needed for optimized circuit design and enables us to minimize chip size and reduce power dissipation of our integrated circuits. By minimizing chip size, we are able to optimize the cost of our knowledge-based processors and facilitate the design of our OEM customers' products within smaller form factors.

*Systems-Level Solutions for Enhanced Design Flexibility and Rapid Time-to-Market.* To encourage our customers to design into their products our knowledge-based processors and to assist their design efforts, we offer various systems-level solutions. These include designs for programmable products that interface a customer's custom integrated circuits with our knowledge-based processors, software and firmware to program our knowledge-based processors and products that interface with our knowledge-based processors, and design tools and environments and reference designs that facilitate the incorporation of our knowledge-based processors into a customer's system. We do not charge our customers for providing these system-level solutions. We work with NPU providers to validate our reference hardware and software, so that networking OEMs using our reference hardware and software can design their products with our knowledge-based processors more reliably and move to production more quickly. We also provide without charge dedicated applications support to enhance the product time-to-market for our OEM customers who choose to develop their own interfaces to our products.

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*Transistor-Level Circuit Design for Enhanced Performance.* In order to meet the stringent demands of our knowledge-based processors for high speed, low power dissipation and small form factors, we use a highly

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customized design approach using transistor-level circuit designs. By using a highly customized design flow, we are able to control precisely how the processing elements are constructed in silicon, leading to higher levels of integrated circuit performance. Designing integrated circuits at the transistor level requires a deep understanding of device physics to maximize transistor device performance. We employ simulation tools that are commonly used in the transistor-level design of analog integrated circuits. We complement these tools with our proprietary techniques to meet the complex design requirements of our knowledge-based processors.

### **Our Strategy**

Our objectives are to be the leading provider of network-aware processing solutions to networking OEMs and to expand into new markets and applications. To achieve these goals, we are pursuing the following strategies:

*Maintain and Extend our Market and Technology Leadership Positions.* We were the first supplier of knowledge-based processors with approximately 512,000 records, the first supplier to achieve 1.0 Volt operation of knowledge-based processors for lower power dissipation, and the first supplier to achieve operating frequencies of over 300 MHz. We intend to expand our market and technology leadership positions by continuing to invest in the development of successive generations of our knowledge-based processors to meet the increasingly high performance needs of networking OEMs. We intend to leverage our engineering capabilities and continue to invest significant resources in recruiting and developing additional expertise in the area of high performance circuit design, custom circuit layout, high performance I/O interfaces, and applications engineering. By utilizing our proprietary design methodologies, we intend to continue to target the most demanding, advanced applications for our knowledge-based processors.

*Focus on Long-Term Relationships with Industry-Leading OEM Customers.* The design and product life cycles of our OEM customers' products have traditionally been lengthy, and we work with our OEM customers at the pre-design and design stages. As a result, our sales process typically requires us to maintain a long-term commitment and close working relationship with our existing and potential OEM customers. This process involves significant collaboration between our engineering team and the engineering and design teams of our OEM customers, and typically involves the concurrent development of our knowledge-based processors and the internally-designed packet processors of our OEM customers. We intend to continue to focus on building long-term relationships with industry-leading networking OEMs to facilitate the adoption of our products and to gain greater insight into the needs of our OEM customers.

*Leverage Technologies to Create New Products and Pursue New Market Opportunities.* We intend to leverage our core design expertise to develop our knowledge-based processors for a broader range of applications to further expand our market opportunities. We plan to address new market segments that are increasingly adopting network-aware processing, such as corporate storage networks, which increasingly use IP-based packet-switching networking protocols.

*Capitalize on Highly Focused Business Model.* We are a fabless semiconductor company, utilizing third parties to manufacture, assemble and test our products. This approach reduces our capital and operating requirements and enables us to focus greater resources on product development. We work closely with our wafer foundries to incorporate advanced process technologies in our solutions to achieve higher levels of performance and reduced cost. These technologies include advanced complementary metal oxide semiconductor, or CMOS, implemented in a 0.13 micron logic process flow, up to eight layers of copper interconnect and 300 millimeter wafer sizes. Our business model allows us to benefit from the large manufacturing investment of our wafer foundries who are able to leverage their investment across many markets.

*Expand International Presence.* We sell our products on a worldwide basis and utilize a network of direct sales and independent sales representatives in the U.S., Europe and Asia. We intend to continue to expand our sales and technical support organization to broaden our

customer reach in new markets. We believe that Asia, in



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particular China, where we have already established customer relationships, provides the potential for significant additional long-term growth for our products. Given the continued globalization of OEM supply chains, particularly with respect to design and manufacturing, we believe that having a global presence will become increasingly important to securing new customers and design wins and to support OEMs in bringing their products to markets.

## **Our Markets and Products**

Our products are incorporated in a broad variety of networking systems that handle the processing of IP packets. These systems are used throughout multiple types of networks that comprise the global Internet infrastructure, including the enterprise, metro, access, edge and core networking markets. These networks vary in their requirements for bandwidth, number of users to support and complexity of IP packet processing. For example, the core networking market has very high bandwidth requirements, as it typically handles traffic from many individual users, to enable Internet traffic over distances that typically span hundreds or thousands of miles. Our OEM customers' networking systems in the core network typically incorporate several of our knowledge-based processors to provide very large knowledge databases to accommodate large numbers of users. Due to the increased usage of the Internet, as well as the higher complexity of Internet-based applications, we expect network-aware processing to increasingly become a more essential component of networking systems throughout the global Internet infrastructure.

Key characteristics of our knowledge-based processors include:

Superscalar architectures, which increase decision throughput by executing multiple decisions in parallel;

Flexible allocation of network-aware processing resources among different classes of packet processing, which allows different subsets of the knowledge database to be selected;

Deep pipelining, which segments processing tasks into smaller sub-tasks for higher decision throughput; and

A comprehensive set of instructions to implement network-aware processing.

We offer a broad range of our knowledge-based processors in two main product families.

### *Proprietary Interface Knowledge-based Processors NL5000 Family*

Our proprietary interface knowledge-based processors are used primarily by networking OEMs developing their own packet processors. Our products operate in conjunction with an OEM-developed custom integrated circuit or a programmable logic device, such as a field programmable gate array, and feature a proprietary interface that provides advanced interface technology to enable networking OEMs to meet their demanding system performance requirements.

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Networking OEMs typically require solutions at different prices in order to target different market segments with the same design. To satisfy this demand, our proprietary interface knowledge-based processor family incorporates product offerings with a range of knowledge database sizes, and all of our knowledge-based processors are designed to be connected in groups to increase the knowledge database available for processing.

We introduced our proprietary interface knowledge-based processors, which are designed in a 0.13 micron TSMC logic process, to the market in the second quarter of 2002. These processors operate from a 1.0 Volt power supply for reduced power consumption and support a knowledge database of up to approximately 512,000 records with performance of up to 500 million decisions per second. These processors also support advanced features for improved fault tolerance that help maintain the data integrity of the knowledge database by providing built-in circuitry to detect faults in the knowledge database.

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We also provide versions of our proprietary interface knowledge-based processors that work with proprietary custom integrated circuits and application software developed by Cisco.

*NPU Interface Knowledge-based Processors NL5000GLQ Family*

Our NPU interface knowledge-based processors are designed to interface directly to NPUs, such as those from Intel Corporation. They incorporate architectural features that simultaneously support multiple NPUs and NPU-based designs, resulting in more rapid packet processing. These features enable a single knowledge-based processor to make network-aware decisions for both incoming and outgoing communications line channels.

We introduced our NPU interface knowledge-based processors, which are designed in a 0.13 micron TSMC logic process, to the market in the first quarter of 2004. These processors operate from a 1.0 Volt power supply for reduced power consumption and support a knowledge database of up to approximately 512,000 records with performance of up to 125 million decisions per second.

The following table summarizes our current knowledge-based processor offerings:

<b>Product</b>	<b>Introduction Date</b>	<b>Process Technology</b>	<b>Performance</b>	<b>Key Features</b>
NL5000 Family (including a customized version for Cisco)	Q2 2002	0.13 micron TSMC logic process	Up to 500 million decisions per second	<p>High performance through a superscaler architecture and deep pipelining</p> <p>Knowledge database with advanced configurability supporting up to approximately 512,000 records</p> <p>Support for fault tolerance in the knowledge database</p> <p>Operate from 1.0 Volt power supply for low power consumption</p> <p>Support for Cisco custom instruction set (available with Cisco version only)</p>
NL5000GLQ Family	Q1 2004	0.13 micron TSMC logic process	Up to 125 million decisions per second	High performance through a superscaler architecture and deep pipelining

Knowledge database with advanced configurability supporting up to approximately 512,000 records

Direct interface to and simultaneous support for two network processors

Operate from 1.0 Volt power supply for low power consumption

*Knowledge-based Processors Under Development*

We are actively developing proprietary interface and NPU interface knowledge-based processors using CMOS logic manufacturing processes with geometries of 0.90 microns and higher with up to eight layers of copper interconnect. These new designs will enable us to offer knowledge-based processors that feature higher levels of performance, including additional functionality developed in close cooperation with our customers to improve application-specific performance.

*NETLite Processors*

Our NETLite NL3100 processor product family is specifically designed for cost-sensitive, high-volume applications such as entry-level switches, routers and access equipment. The NETLite processor family leverages

**NPU Interface**  
**Knowledge-based Processors**

**Proprietary Interface**  
**Knowledge-based Processors**

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circuit techniques developed and refined during the design of our knowledge-based processor families, and benefits from die size optimization, lower power dissipation and redundant computing techniques. In addition, the NETLite processor's simplified pipeline architecture allows for lower cost manufacturing and assembly in less expensive packages than our knowledge-based processors, and allows for lower cost system designs. As such, the NETLite processors are ideal for entry-level systems that do not require the advanced parallel processing and deep pipelining performance of our high-end knowledge-based processors.

For rapid time to market, our customers can use our software development kit, or NLSDK, to develop and verify hardware and software using the NETLite processors. The NLSDK allows customers to run cycle-accurate patterns at varying operating speeds to exercise the functionality of the NETLite processors and confirm compatibility with target applications. The NETLite processor family is also supported by a suite of production qualified firmware and software drivers and system reference designs, which will enable the growing entry-level system segment to more quickly ramp production with new designs supporting next-generation Internet features such as QoS, security and Layer 3 routing.

The following table summarizes our current NETLite processor offerings:

<b>Product</b>	<b>Introduction Date</b>	<b>Process Technology</b>	<b>Performance</b>	<b>Key Features</b>
NL3100 Family	Q1 2005	0.13 micron TSMC logic process	Up to 80 million decisions per second	Simplified pipelined architecture Simplified instruction set, which is a subset of the knowledge-based processor instruction set Lower cost manufacturing and system designs NLSDK development kit Hardware and software reference platforms

*Legacy Products*

We continue to support our legacy network search engines, which include the NL1000 through NL4000 network search engine families and the NL3128GLM network search engines, a device that interfaces directly to certain NPUs from Applied Micro Circuits Corporation. We introduced our network search engine products between 1998 and 2001. These products are fabricated by UMC or TSMC using a range of process technologies from 0.35 micron to 0.15 micron.

We also continue to support a legacy classification and forwarding processor, or CFP, product, that provides certain advantages over NSEs for particular classes of packet processing commonly used in networking systems. We introduced the CFP, which is fabricated by UMC using a 0.25 micron process, to the market in the second quarter of 2000. We continue to research CFP technology and may incorporate it into a future knowledge-based processor product.

**Customers**

The markets for networking systems utilizing our products and services are mainly served by large networking OEMs, such as Alcatel, ARRIS, Atrica, Cisco, Cloudshield, Extreme Networks, Force 10 Networks, Foundry Networks, Inc., Fujitsu, Hitachi, Huawei, Juniper Networks and Nortel Networks. We work with these and other networking OEMs to understand their requirements, and provide them with solutions that they

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then qualify and, in some cases, specify for use within their systems. While we sell directly to some networking OEMs, we also provide our products and services indirectly to other networking OEMs through their contract manufacturers, who in turn assemble our products into systems for delivery to our OEM customers. Sales to contract manufacturers accounted for 78%, 38% and 27% of total revenue in 2004, 2003 and 2002, respectively. Sales of our products are made under short-term, cancelable purchase orders. As a result, our ability to predict future sales in any given period is limited and subject to change based on demand for our OEM customers' systems and their supply chain decisions.

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We also provide our products and services indirectly to our OEM customers through our international stocking sales representatives. Our stocking sales representatives are independent entities that assist us in identifying and servicing foreign networking OEMs and generally purchase our products directly from us for resale to OEMs or contract manufacturers located outside the U.S. Our international stocking sales representatives generally exclusively service a particular foreign region or customer base, and purchase our products pursuant to cancellable and reschedulable purchase orders containing our standard warranty provisions for defects in materials, workmanship and product performance. At our option, defective products may be returned for their purchase price or for replacement. To date, our international stocking sales representatives have returned a small number of defective products to us. Our international stocking sales representatives may also act as a sales representative and receive commissions on sales of our products. Our international stocking sales representatives include Bussan Microelectronics Corporation/Mitsui Comtek Corporation and Lestina International Limited. Sales through our international stocking sales representatives accounted for 12%, 22% and 19% of total revenue in 2004, 2003 and 2002, respectively. While we have purchase agreements with our international stocking sales representatives, our international stocking sales representatives do not have long-term contracts with any of our OEM customers that use our products and services.

In 2004, Cisco, including its contract manufacturers, accounted for 73% of our total revenue. In 2003, Solectron (as Cisco's contract manufacturer), Micron Technology, Inc. and Bussan Microelectronics /Mitsui Comtek accounted for 27.4%, 25.9% and 15.5% of our total revenue, respectively. In addition, in 2003, Cisco, including its contract manufacturers, accounted for 33.5% of our total revenue. In 2002, Cisco, including its contract manufacturers, accounted for 21.6% of our total revenue.

## **Sales and Marketing**

Our sales and marketing strategy is to achieve design wins with leaders and emerging participants in the networking systems market and to maintain these design wins primarily through leading-edge products and superior customer service. We focus our marketing and sales efforts at a high organizational level of our potential customers to access key decision makers. In addition, as many networking OEMs design custom integrated circuits to interface to our products, we believe that applications support at the early stages of design is critical to reducing time-to-market and minimizing costly redesigns for our customers.

Our product sales cycles can take up to 24 months to complete, requiring a significant investment in time, resources and engineering before realization of income from product sales, if at all. Such long sales cycles mean that OEM customers' vendor selections, once made, are normally difficult to change. As a result, a design loss to the competition can negatively impact our financial results for several years. Similarly, design wins can result in an extended period of revenue opportunities with that customer.

We market and sell our products through our direct sales force and through approximately 17 independent sales representatives throughout the world. Our direct sales force is dedicated to enhancing relationships with our customers. We supplement our direct sales force with independent sales representatives, who have been selected based on their understanding of the networking systems market and their level of penetration at our target OEM customers. We also use application engineers to provide technical support and design assistance to existing and potential customers.

Our marketing group is responsible for market and competitive analyses and defining our product roadmaps and specifications to take advantage of market opportunities. This group works closely with our research and development group to align development programs and product launches with our OEM customers' schedules. Additionally, this group develops and maintains marketing materials, training programs and our web site to convey our benefits to networking OEMs.

## **Research and Development**

We devote substantial resources to the development of new products, improvement of existing products and support of the emerging requirements of networking OEMs. We have assembled a team of product designers



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possessing extensive experience in system architecture, analog and digital circuit design, hardware reference board design, software architecture and driver design and advanced fabrication process technologies. As of December 31, 2004, we had 55 full-time employees engaged in research and development. Our research and development expense was \$17.3 million, \$18.3 million and \$17.1 million for the years ended December 31, 2004, 2003 and 2002, respectively.

We use a number of standard design tools in the design, manufacture and verification of our products. Due to the highly complex design requirements of our products, we typically supplement these standard tools with our own tools to create a proprietary design methodology that allows us to optimize the circuit-level performance of our products.

## **Technology**

We have technological core competencies in the design of integrated circuits to enable network-aware processing using very large knowledge databases. Our products integrate in a single integrated circuit high performance processing, storage circuitry, control functionality and advanced I/O interfaces. Due to the highly specialized nature of our design process, we implement almost all portions of our product design without third party technology, with the exception of readily available intellectual property to implement standard functions, such as memory and timing control circuits.

We have assembled a research and development team with extensive expertise in the following areas:

*Transistor-level Circuit Design.* A common approach to application specific processor design is to use pre-defined logic functions. This approach is used extensively to shorten the development cycle by allowing an automated process for mapping a product's logical definition to its construction in silicon. In order to provide knowledge-based processors which feature high speed, low power dissipation and small form factors, we use a more fundamental approach using transistor-level circuit design. With this highly-customized design flow, we are able to implement processing elements that are defined at the most fundamental transistor level and therefore provide higher levels of performance. We employ standard simulation tools that are commonly used in the transistor-level design of analog products. We complement these tools with unique and proprietary methods to meet the complex design requirements of our knowledge-based processors.

*Full-custom Layout.* In order to implement a transistor-level circuit design, we use a full-custom layout flow to define how circuits are constructed in silicon. This flow enables us to control transistor characteristics to optimize circuit design and minimize chip size. By minimizing chip size, we are able to reduce the cost of our knowledge-based processors. This flow also enables us to control the precise layout of transistors and the connections between them in order to reduce power dissipation. Minimizing the power dissipated by integrated circuits becomes increasingly important for networking systems, which are increasingly designed in small form factors.

*Advanced Design Architecture.* By working closely with the engineering and design teams of our OEM customers, we utilize our design architecture skills to help ensure that our knowledge-based processors are deployed within their systems in a manner that best addresses their target applications. This product architecture task involves effective partitioning of our knowledge-based processors' resources to multiple network decision processes, optimized timing to ensure efficient interfaces to other devices and determination of instruction sequences to allow for unique applications. We have acquired our advanced design architecture skills and application knowledge through close collaboration with networking OEMs during the development of successive generations of our products.

*Device Physics.* We possess a comprehensive understanding of device physics, which is important to the development of knowledge-based processors. This understanding includes not only the desired transistor characteristics to be implemented but also the way in which process variations can affect the operation of an

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integrated circuit. To mitigate these effects, we utilize our extensive knowledge of device physics and skills in conjunction with standard tools to make circuit-level design modifications or manufacturing process changes to improve the performance of our products.

*Software Product Code and Development Tools.* Our knowledge-based processors are delivered to our OEM customers with a suite of supporting software that is intended to accelerate the integration of our solution in their overall system environment. This product code includes knowledge database management software to assist in the initialization and management of records retained on our knowledge-based processors, as well as software used to communicate with our knowledge-based processor. In addition, we provide our OEM customers with emulation and modeling software for the design and verification of their software and hardware. We develop software packages using a team of engineers that possess advanced system knowledge and device modeling skills.

*High-speed I/O Interface.* Our products interface with high performance packet processors that utilize our knowledge-based processors to decide what action to take on an incoming packet of information. Due to the nature of this functional partitioning, a very high bandwidth connection is required between the packet processor and our knowledge-based processor. To meet the complex requirements of this interface, we develop custom high-speed I/O interfaces. We develop these circuits with advanced technology to support integrated circuit-to-integrated circuit communications.

## **Manufacturing**

We design and develop our products and electronically transfer our proprietary designs to third party wafer foundries to manufacture our products. Wafers processed by these foundries are shipped to our subcontractors, where they are assembled into finished products and electronically tested before delivery to our customers. We believe that this manufacturing model significantly reduces our capital requirements and allows us to focus our resources on the design, development and marketing of our products.

Our principal wafer foundry is TSMC in Taiwan, and we also use UMC in Taiwan. We are actively involved with product development on next-generation processes, and are designing products on TSMC's 90-nanometer process geometries and higher. The latest generation of our products employs up to eight layers of copper interconnect and 300 millimeter wafer sizes.

Our products are designed to use industry standard packages and be tested using widely available automatic test equipment. We develop and control product test programs used by our subcontractors based on our product specifications. We currently rely on ASAT Holdings Limited in Hong Kong, Amkor Technology, Inc., Advanced Semiconductor Engineering, Inc. in Taiwan, King Yuan Electronics Co., Ltd. in Taiwan, ISE Labs, Inc. and Viko Test Lab in the U.S. to assemble and test our products. In February 2005, we established a representative office in Taiwan to employ local personnel to work directly with our Asian wafer manufacturers and assembly and test houses to facilitate manufacturing operations.

We have designed and implemented an ISO9001-certified quality management system that provides the framework for continual improvement of our products, processes and customer service. We apply well-established design rules and practices for CMOS devices through standard design, layout and test processes. We also rely on in-depth simulation studies, testing and practical application testing to validate and verify our products. We emphasize a strong supplier quality management practice in which our manufacturing suppliers are pre-qualified by our operations and quality teams. To ensure consistent product quality, reliability and yield, we closely monitor the production cycle by reviewing electrical, parametric and manufacturing process data from each of our wafer foundries and assembly subcontractors. We currently do not have long-term supply contracts with any of our significant third party manufacturing service providers. We generally place purchase orders with these providers according to terms and conditions of sale which specify price and 30-day payment terms and which limit the providers' liability.



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### **Competition**

The markets for our products are highly competitive. We believe that the principal bases of competition are:

processing speed;

power dissipation;

size of the knowledge database that can be processed;

price;

product availability and reliability;

customer support and responsiveness;

timeliness of new product introductions; and

credibility of supplier to design and manufacture product.

We believe that we compete favorably with respect to each of the bases identified above. However, some of our larger competitors have greater financial resources and a longer track record as a semiconductor supplier than we do. We anticipate that the market for our products will be subject to rapid technological change. As we enter new markets and pursue additional applications for our products, we expect to face competition from a larger number of competitors. Within our target market, we primarily compete with certain divisions of Cypress Semiconductor Corporation and Integrated Device Technology, Inc. or IDT. We expect to face competition in the future from our current competitors, other manufacturers and designers of semiconductors, and innovative start-up semiconductor design companies.

### **Intellectual Property**

Our success and future growth will depend, in part, on our ability to protect our intellectual property. We rely primarily on patent, copyright, trademark and trade secret laws to protect our intellectual property. We also attempt to protect our trade secrets and other proprietary information through agreements with our customers, suppliers, employees and consultants and through security protection of our computer network and physical premises. However, these measures may not provide meaningful protection for our intellectual property.

As of December 31, 2004, we held 69 issued U.S. patents and 7 issued foreign patents. In addition, as of December 31, 2004, we had 73 patent applications pending in the U.S. We may not receive any additional patents as a result of these applications or future applications. Our U.S.

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patents have expiration dates from 2017 through 2023. Nonetheless, we continue to pursue the filing of additional patent applications. Any rights granted under any of our existing or future patents may not provide meaningful protection or any commercial advantage to us.

While our patents and other intellectual property rights are important, we believe that our technical expertise and ability to introduce new products in a timely manner will also be important factors in maintaining our competitive position.

Many participants in the semiconductor industry have a significant number of patents and have frequently demonstrated a willingness to commence litigation based on allegations of patent and other intellectual property infringement. From time to time, we have received, and expect to continue to receive, notices of claims of infringement or misappropriation of other parties' proprietary rights. We cannot assure you that we will prevail in these actions, or that other actions alleging infringement by us of third party intellectual property rights, misappropriation or misuse by us of third party trade secrets, or invalidity or unenforceability of our patents will not be asserted against us or that any assertions of infringement, misappropriation, misuse, invalidity or unenforceability will not materially and adversely affect our business, financial condition and results of operations.

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We intend to protect our rights vigorously, but there can be no assurance that our efforts will be successful. Thus, despite our precautions, a third party may copy or otherwise obtain and use our products, services or technology without authorization, develop similar technology independently or design around our patents. In addition, effective patent, copyright, trademark and trade secret protection may be unavailable or limited in certain foreign countries. Moreover, we often incorporate the intellectual property of third parties into our designs, which is subject to certain obligations with respect to the non-use and non-disclosure of such intellectual property. We cannot assure you that the steps we have taken to prevent infringement, misappropriation or misuse of our intellectual property or the intellectual property of third parties will be successful. Furthermore, enforcement of our intellectual property rights may divert the efforts and attention of our management team and may be costly to us.

## **Agreement with Micron Technology**

Under a license and technology transfer agreement with Micron Technology, Inc., or Micron, as amended in May 2003, we have granted Micron a non-transferable, non-exclusive limited license that gives Micron the right to arrange for the manufacture of one of our NL5000GLQ products at our designated wafer foundry and to sell worldwide the product supplied by that foundry. Micron has paid us license and design fees totaling \$4.6 million through December 31, 2004, and under the agreement must pay us additional design fees of up to approximately \$0.7 million under specified circumstances, including achievement of particular milestones. Micron must pay us royalties under specified circumstances. The agreement expires in December 2006, and Micron's license rights will survive termination of the agreement, subject to payment of all required fees and royalties and compliance with other continuing obligations of Micron under the agreement. To date, Micron has not exercised its license rights under the agreement, and we do not expect Micron to do so in the foreseeable future.

The license and technology transfer agreement further provides that Micron may design specified versions of our NL5000GLQ products or other products compliant to the LA-1 interface, a high-speed interface based on the LA-1 standard defined by the Networking Processing Forum, an industry consortium in which we hold membership. In the event Micron develops these products, we would have the option to receive a non-transferable, non-exclusive limited license that would allow us to have these Micron products manufactured for us at Micron's facility with the additional right to sell them worldwide. Further, if we were to exercise these license rights, we would be required to pay design fees and royalties to Micron. Under specified conditions, Micron's design rights and our related license rights will survive termination of the agreement, subject to payment of all required fees and royalties and compliance with other continuing obligations of both parties under the agreement. To date, Micron has not exercised its design rights under the agreement, and we do not expect Micron to do so in the foreseeable future.

## **Employees**

As of December 31, 2004, we had 75 full-time employees, including 55 in research and development, 11 in sales and marketing and 9 in general and administrative. None of our employees are covered by collective bargaining agreements. We believe our relations with our employees are good.

## **Available Information**

Our Web site address is [www.netlogicmicro.com](http://www.netlogicmicro.com). The information in our Web site is not incorporated by reference into this report. Through a link on the Investor Relations section of our Web site, we make available our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after they are filed with, or furnished to, the Securities and Exchange Commission.





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### **Risk Factors**

*If any of the following risks actually occur, our business, results of operations and financial condition could suffer significantly.*

**We expect to derive substantially all of our revenue from sales of our knowledge-based processors, and, if the demand for these products does not grow, we may not achieve our growth and strategic objectives.**

Our knowledge-based processors are used primarily in networking systems, including routers, switches, network access equipment and networked storage devices. We derive a substantial portion of our total revenue from sales of our knowledge-based processors in the networking market and expect to continue to derive a substantial portion of our total revenue from this market for the foreseeable future. Sales of our knowledge-based processors accounted for 86% and 43% of our total revenue during the year ended December 31, 2004 and 2003, respectively. We believe our future business and financial success depends on continued market acceptance and increasing sales of our knowledge-based processors. In order to meet our growth and strategic objectives, networking original equipment manufacturers, or OEMs, must continue to incorporate our products into their systems as their preferred means of enabling network-aware processing of IP packets, and the demand for their systems must grow as well. Thus, our future success depends in large part on factors outside our control, and sales of our knowledge-based processors may not meet our revenue growth and strategic objectives.

**Because we rely on a small number of customers for a significant portion of our total revenue, the loss of, or a significant reduction in, orders for our products from these customers would negatively affect our total revenue and business.**

To date, we have been dependent upon orders for sales of knowledge-based processors to a limited number of customers, and, in particular, Cisco, for most of our total revenue. During the year ended December 31, 2004, Cisco and its contract manufacturers accounted for 73% of our total revenue (and 75% of our total product revenue). During the year ended December 31, 2003, Cisco and its contract manufacturers accounted for 34% of our total revenue (and 45% of our total product revenue), license fees from Micron Technology, Inc., or Micron, accounted for 26% of our total revenue and orders placed by sales representatives at the request of Hitachi accounted for 13% of our total revenue. We expect that our future financial performance will continue to depend in large part upon our relationship with Cisco and several other networking OEMs.

We cannot assure you that existing or potential customers will not develop their own solutions, purchase competitive products or acquire companies that use alternative methods to enable network-aware processing in their systems. We do not have long-term purchase commitments from any of our OEM customers or their contract manufacturers, all of whom do business with us currently only on the basis of short-term purchase orders, which often are cancelable prior to shipment. The loss of orders for our knowledge-based processors for Cisco products or products of other major users of our knowledge-based processors would have a significant negative impact on our business.

**We face additional risks to our business success and financial condition because of our dependence on a small number of customers for sales of our products.**

Our dependence on a small number of customers, especially Cisco and its contract manufacturers, for most of our revenue in the foreseeable future creates additional risks for our business, including the following:

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we may face problems in collecting a substantial portion of our accounts receivable if any of these companies faces financial difficulties or dispute payments;

we may face increased pressure to reduce the average selling prices of our knowledge-based processors;

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we may find it difficult to pass through increases in our manufacturing and other direct costs; and

the reputation of our knowledge-based processors in the marketplace may be affected adversely if Cisco or other networking OEMs that represent a significant percentage of our sales of knowledge-based processors reduce or cease their use of our products.

### **We have a history of operating losses, may incur significant operating losses in the future and may not be able to achieve or sustain profitability.**

We have recorded operating losses in each year since our inception in 1995. At December 31, 2004, we had an accumulated deficit of approximately \$99.2 million. To become profitable, we will have to generate greater total revenue and control costs and expenses. We cannot assure you that we will be able to generate greater total revenue, or limit our costs and expenses, sufficiently to achieve profitability. Even if we become profitable, we may not be able to sustain or increase profitability on a quarterly or annual basis.

### **Our limited history of sales of our knowledge-based processors makes it difficult to evaluate our prospects.**

Although our first knowledge-based processor was introduced in the second quarter of 2002, we did not have significant sales of these products until the third quarter of 2003. We cannot provide assurance that sales of our knowledge-based processors will increase substantially in the future. Due to our limited historical sales data and the high concentration of our sales with a small number of networking OEMs, our ability to predict future sales and operating results for our products is limited, and, accordingly, prior quarterly or annual results may not be an indication of our future revenue growth or financial results.

### **Because we sell our products on a purchase order basis and rely on estimated forecasts of our customers' needs, inaccurate forecasts could adversely affect our business.**

We sell our products pursuant to individual purchase orders, and not pursuant to long-term purchase commitments. Therefore, we rely on estimated demand forecasts, based upon input from our customers, to determine how much product to manufacture. Because our sales are based on purchase orders, our customers may cancel, delay or otherwise modify their purchase commitments with little or no consequence to them and with little or no notice to us. For these reasons, we generally have limited visibility regarding our customers' product needs. We cannot provide assurance as to the quantities or timing required by our customers for our products. We cannot assure you that we will not experience subsequent substantial warranty claims or that warranty claims will not result in cancellation of existing orders or reluctance of customers to place future orders. In addition, the product design cycle for networking OEMs is lengthy, and it may be difficult for us to accurately anticipate when they will commence commercial shipments of products that include our knowledge-based processors. Whether in response to changes affecting the industry or a customer's specific business pressures, any cancellation, delay or other modification in our customers' orders could significantly reduce our revenue, cause our operating results to fluctuate from period to period and make it more difficult for us to predict our revenue. In the event of a cancellation or reduction of an order, we may not have enough time to reduce operating expenses to minimize the effect of the lost revenue on our business, and we may purchase too much inventory and spend more capital than expected.

### **We do not expect to sustain our recent revenue growth rate.**

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We have recently experienced significant revenue growth. Specifically, our total revenue increased 253% to \$47.8 million during the year ended December 31, 2004 from \$13.5 million during the year ended December 31, 2003. In addition, our total revenue increased 367.5% from \$2.9 million in 2002 to \$13.5 million in 2003, including non-recurring license fees of approximately \$3.5 million in 2003. We do not expect similar revenue growth rates in future periods, nor do we expect to receive any significant payments from non-recurring engineering services beyond 2004. Accordingly, you should not rely on the results of any prior quarterly or annual periods as an indication of the future rate of our revenue growth or our future financial results.

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### **We are dependent on contract manufacturers for a significant portion of our revenue.**

Many of our OEM customers, including Cisco, use third party contract manufacturers to manufacture their networking systems. These contract manufacturers represented 78% and 38% of our total revenue for the years ended December 31, 2004 and 2003, respectively. Contract manufacturers purchase our products directly from us on behalf of networking OEMs. Although we work with our OEM customers in the design and development phases of their systems, these OEM customers are gradually giving contract manufacturers more authority in product purchasing decisions. As a result, we depend on a concentrated group of contract manufacturers for a substantial portion of our revenue. If we cannot compete effectively for the business of these contract manufacturers or if any of the contract manufacturers, which work with our OEM customers, experience financial or other difficulties in their businesses, our revenue and our business could be adversely affected. In particular, if one of our OEM customer's contract manufacturers becomes subject to bankruptcy proceedings, neither we nor our OEM customer may be able to obtain any of our products held by the contract manufacturer. In addition, we may not be able to recover any payments owed to us by the contract manufacturer for products already delivered or recover the products held in the contract manufacturer's inventory when the bankruptcy proceeding is initiated. If we are unable to deliver our products to our OEM customers in a timely manner, our business would be adversely affected.

### **The average selling prices of our products may decline, which could reduce our revenue and gross margin.**

The average selling prices of our products may decline over the course of their commercial lives, principally due to the supply of competing products, reduction in demand from customers, pressure from customers to reduce prices and product cycle changes. Declining average selling prices will adversely affect our future operating results. To maintain acceptable operating results, we will need to develop and introduce new products and product enhancements on a timely basis and continue to reduce our costs. If we are unable to offset any reductions in our average selling prices by increasing our sales volumes and achieving corresponding production cost reductions, or if we fail to develop and introduce new products and enhancements on a timely basis, our revenue and operating results will suffer.

### **We rely on third parties for the manufacture of our products, and a significant increase in wafer pricing or our failure to secure sufficient capacity could limit our growth and adversely affect our operating results.**

As a fabless semiconductor company, we rely on third-party wafer foundries to manufacture our products. We currently do not have long-term supply contracts with either of our wafer foundries, Taiwan Semiconductor Manufacturing Co., Ltd., or TSMC, and United Microelectronics Corporation, or UMC. Neither TSMC nor UMC is obligated to perform services or supply products to us for any specific period, in any specific quantities or at any specific price, except as may be provided in a particular purchase order. As a result, there are numerous risks associated with our reliance on these wafer foundries, including the possibilities that TSMC or UMC may give higher priority to their other customers or that our relationships with either wafer foundry may deteriorate. We cannot assure you that TSMC and UMC will continue to provide us with our products at acceptable yields or in sufficient quantities, for reasonable costs and on a timely basis to meet our customers' needs. A failure to ensure the timely fabrication of our products could cause us to lose customers and could have a material adverse effect on our operating results.

If either wafer foundry, and in particular TSMC, ceases to provide us with required production capacity with respect to our products, we cannot assure you that we will be able to obtain manufacturing capacity from other wafer foundries on commercially reasonable terms or that these arrangements, if established, will result in the successful manufacturing of our products. These arrangements might require us to share our technology and might be subject to unilateral termination by the wafer foundries. Even if such capacity is available from another manufacturer, we would need to qualify the manufacturer, which process could take six months or longer.



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Furthermore, we may not be able to identify or qualify manufacturing sources that would be able to produce wafers with acceptable manufacturing yields.

**We also rely on third parties for other products and services, including the assembly and testing of our products, and any failure by third parties to provide the tools and services we require could limit our growth and adversely affect our future operating results.**

All of our products are assembled and tested by third-party vendors and require the use of high performance assembly and test equipment. In addition, in connection with the design of our products, we use software tools, which we obtain from third party software vendors, for simulation, layout and other design purposes. Our reliance on independent assembly, testing, software and other vendors involves a number of risks, including reduced control over delivery schedules, quality assurance and costs. We currently do not have long-term supply contracts with all of these third party vendors. As a result, most of these third party vendors are not obligated to provide products or perform services to us for any specific period, in any specific quantities or at any specific price, except as may be provided in a particular purchase order. The inability of these third party vendors to deliver high performance products or services of acceptable quality and in a timely manner, could lengthen our design cycle, result in the loss of our customers and reduce our revenue.

**Our costs may increase substantially if the wafer foundries that supply our products do not achieve satisfactory product yields or quality.**

The wafer fabrication process is an extremely complicated process where the slightest changes in the design, specifications or materials can result in material decreases in manufacturing yields or even the suspension of production. From time to time, we and our wafer foundries have experienced, and are likely to experience manufacturing defects and reduced manufacturing yields related to errors or problems in our wafer foundries' manufacturing processes or the interrelationship of their processes with our designs. In some cases, our wafer foundries may not be able to detect these defects early in the fabrication process or determine the cause of such defects in a timely manner. We may incur substantial research and development expense for prototype or development stage products as we qualify the products for production.

Generally, in pricing our knowledge-based processors, we assume that manufacturing yields will continue to increase, even as the complexity of our products increases. Once our products are initially qualified with our wafer foundries, minimum acceptable yields are established. We are responsible for the costs of the wafers if the actual yield is above the minimum. If actual yields are below the minimum, we are not required to purchase the wafers. The minimum acceptable yields for our new products are generally lower at first and increase as we achieve full production. Whether as a result of a design defect or manufacturing error, unacceptably low product yields or other product manufacturing problems could substantially increase the overall production time and costs and adversely impact our operating results on sales of our products. Product yield losses will increase our costs and reduce our gross margin. In addition to significantly harming our operating results and cash flow, poor yields may delay shipment of our products and harm our relationships with existing and potential customers.

**To be successful we must continue to develop and have manufactured for us, innovative products to meet the evolving requirements of networking OEMs.**

To remain competitive, we devote substantial resources to research and development, both to improve our existing knowledge-based processor technology and to develop new technology. We also seek to improve the manufacturing processes for our knowledge-based processors, including the use of smaller process geometries, which we believe is important for our products to serve our OEM customers' requirements for increased network-aware processing. Our failure to migrate our knowledge-based processors to logic processes at smaller process geometries could substantially reduce the future competitiveness of our products. In addition, from time to time, we may have to redesign some of our

knowledge-based processors or modify the manufacturing process for them. We cannot give you any assurance that we will be able to improve our existing knowledge-based



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processor technology or develop and integrate new technology into our products. Even if we design better knowledge-based processors, we may encounter problems during the manufacturing or assembly process, including reduced manufacturing yields, production delays and increased expenses, all of which could adversely affect our business and results of operations.

In addition, given the highly complex nature of these products, even the slightest change or adjustment to our integrated circuit designs could require substantial resources to implement them. We may not be able to make these changes or adjustments to our knowledge-based processors or correct any errors or defects arising from their implementation. Failure to make these changes or adjustments or correct these errors or defects during the product development stages, or any resulting delays, could severely harm our existing and potential customer relationships and could likely increase our development costs, adversely affecting our operating results. If these changes, adjustments, errors or defects are not identified or requested until after commercial production has begun or after products have been delivered to customers, we may be required to re-test existing inventory, replace products already shipped or re-design the products, all of which would likely result in significant time delays and additional costs and expenses. For example, we accelerated production of our knowledge-based processors to meet the schedule demanded of Cisco in the fall of 2003. As a result of certain design issues, these production runs had relatively low production yields, which resulted in related costs and expenses of approximately \$11.4 million in 2003 including \$9.8 million in adverse purchase commitments, \$1.0 million in warranty accruals and a \$0.6 million write down of inventory.

**We have sustained substantial losses from low production yields in the past and may incur such losses in the future.**

Designing and manufacturing integrated circuits is a difficult, complex and costly process. Once research and development has been completed and the foundry begins to produce commercial volumes of the new integrated circuit, products still may contain errors or defects that could adversely affect product quality and reliability. We have experienced low yields and have incurred substantial research and development expenses in the design and initial production phases of all of our legacy network search engine products and knowledge-based processors during the past three years. For example, after the introduction of our first knowledge-based processor, we shipped a substantial quantity of these knowledge-based processors to Cisco in 2003, which processors met our yield objectives and passed the qualification and testing procedures that Cisco and we had applied to them. Subsequently, Cisco began to apply more rigorous testing on their networking systems that identified certain situations in which our products failed to perform to specification. As a result, Cisco returned these products to us under the terms of our standard warranty, and we replaced them with processors that passed more stringent testing procedures. The more stringent testing resulted in unusually low production yields which increased our per unit cost to an amount in excess of selling price. As a result of these events, we reduced the carrying value of our inventory at December 31, 2003 by \$7.0 million to properly record them at their estimated market value. In addition, we established reserves to cover expected future losses on non-cancelable commitments to purchase wafers from our foundries as we estimated that the cost of these wafers and the additional expenses required to package and test the finished products would exceed the price at which the final products could be sold by approximately \$3.4 million. The reserves were recorded in the third and fourth quarters of 2003. Although the previously identified errors have not appeared in tests of Cisco networking systems replacement parts, and some of the products that we have written down may be reclassified as good parts and resold, we cannot assure you that this error or other material problems will not occur in knowledge-based processors that we have shipped previously or may ship in the future. Moreover, we cannot be certain that other low yield problems with similar or even greater consequences will not arise in the future.

**If we fail to retain key personnel and hire additional personnel, our business and growth could be negatively affected.**

Our business has been dependent to a significant degree upon the services of a small number of executive officers and technical employees. We generally do not have employment or non-competition agreements with

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any of our executive officers. We do not maintain key-man life insurance on the lives of any of our key personnel. The loss of any of these individuals could negatively impact our technology development efforts and our ability to service our existing customers and obtain new customers.

Our future growth will also depend, in part, upon our ability to recruit and retain other qualified managers, engineers and sales and marketing personnel. There is intense competition for these individuals in our industry, and we cannot assure you that we will be successful in recruiting and retaining these individuals. If we are unable to recruit and retain these individuals, our technology development and sales and marketing efforts could be negatively impacted.

**If we fail to maintain competitive stock option packages for our employees, or if our stock price declines materially for a protracted period of time, we might have difficulty retaining our employees and our business may be harmed.**

In today's competitive technology industry, employment decisions of highly skilled personnel are influenced by stock option packages, which offer incentives above traditional compensation only where there is a consistent, long-term upward trend over time of a company's stock price. If our stock price declines due to market conditions, investors' perceptions of the technology industry or managerial or performance problems we have, our stock option incentives may lose value to key employees, and we may lose these employees or be forced to grant additional options to retain them. This in turn could result in:

immediate and substantial dilution to investors resulting from the grant of additional options necessary to retain employees; and

potential compensation charges against the company, which could negatively impact our operating results.

**When the accounting treatment for employee stock option changes, our earnings will be adversely affected by the new stock option accounting rule and we may be forced to change our employee compensation and benefits practices.**

We currently account for the issuance of employee stock options under principles that do not require us to record compensation expense for options granted at fair market value. In December 2004, the FASB issued SFAS No. 123 (revised 2004), Share-Based Payment. SFAS No. 123(R) would require the Company to measure all employee stock-based compensation awards using a fair value method and record such expense in its financial statements. In addition, the adoption of SFAS No. 123(R) will require additional accounting related to the income tax effects and additional disclosure regarding the cash flow effects resulting from share-based payment arrangements. We are required to adopt SFAS No. 123(R) beginning in the third quarter of fiscal 2005. Upon adoption of SFAS No. 123(R), our stock-based compensation expenses will be higher and our net income will be reduced or net losses will be increased compared to our current accounting. As a consequence, we may consider reducing future stock option grants which could make it harder for us to retain existing employees and attract qualified candidates.

**A failure to successfully address the potential difficulties associated with international business could reduce our growth, increase our operating costs and negatively impact our business.**

We conduct a significant amount of our business with companies that operate primarily outside of the United States, and intend to increase sales to companies operating outside of the United States. For example, our OEM customers based outside the United States accounted for 3% of our

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total revenue during the year ended December 31, 2004, and for 22% of our total revenue during the same period of 2003. Not only are many of our customers located abroad, but our two wafer foundries are based in Taiwan, and we outsource the assembly and

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some of the testing of our products to companies based in Taiwan and Hong Kong. We face a variety of challenges in doing business internationally, including:

foreign currency exchange fluctuations;

unanticipated changes in local regulations;

potentially adverse tax consequences, such as withholding taxes;

timing and availability of export and import licenses;

political and economic instability;

reduced or limited protection of our intellectual property;

protectionist laws and business practices that favor local competition; and

additional financial risks, such as potentially longer and more difficult collection periods.

Because we anticipate that we will continue to rely heavily on foreign companies for our future growth, the occurrence of any of the circumstances identified above could significantly increase our operating costs, delay the timing of our revenue and harm our business and financial condition.

**We must design our knowledge-based processors to meet the needs of our OEM customers and convince them to use our products, or our revenue will be adversely affected.**

In general, our OEM customers design our knowledge-based processors into their products during the early stages of their development after an in-depth technical evaluation of both our and our competitors' products. These design wins are critical to the success of our business. In competing for design wins, if a competitor's product is already designed into the product offering of a potential customer, it becomes very difficult for us to sell our products to that customer. Changing suppliers involves additional cost, time, effort and risk for the customer. In addition, our products must comply with the continually evolving specifications of networking OEMs. Our ability to compete in the future will depend, in large part, on our ability to comply with these specifications. As a result, we expect to invest significant time and effort and to incur significant expense to design our products to ensure compliance with relevant specifications. Even if a networking OEM designs our knowledge-based processors into its systems, we cannot assure you that its systems will be commercially successful or that we will receive significant revenue from sales of knowledge-based processors for those systems.

**Factors that negatively affect the businesses of the networking OEMs that use or could use our knowledge-based processors could negatively impact our total revenue.**

The timing and amount of our revenue depend on the ability of the networking OEMs who use our knowledge-based processors to market, produce and ship systems incorporating our technology. Factors that negatively affect a significant customer or group of customers could negatively affect our results of operations and financial condition. Many issues beyond our control influence the success of the networking OEMs that use our products, including, for example, the highly competitive environment in which they operate, the strength of the markets for their products, their engineering capabilities, their ability or inability to obtain other components from other suppliers, the compatibility of any of their other components with our products, and their financial and other resources. Likewise, we have no control over their product development or pricing strategies, which directly affect sales of their products and, in turn, our revenue. A decline in sales of our OEM customers' systems that use our knowledge-based processors would reduce our revenue. In addition, seasonal and other fluctuations in demand for their products could cause our operating results to fluctuate, which could cause our stock price to fall.

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**We have a lengthy sales cycle, which may result in significant expenses that do not generate significant revenue or delayed revenue generation from our selling efforts and limits our ability to forecast our revenue.**

Based on our limited sales history for our knowledge-based processors, we have limited visibility on the length of the sales cycle for our knowledge-based processors. However, we expect that our product sales cycle, which results in our knowledge-based processors being designed into our customers' products, could take up to 24 months. It can take an additional six months to reach volume production on these products. A number of factors can contribute to the length of the sales cycle, including technical evaluations of our products by networking OEMs, the design process required to integrate our products into our OEM customers' products and the timing of networking OEMs' new product announcements. In anticipation of product orders, we may incur substantial costs before the sales cycle is complete and before we receive any customer payments. As a result, in the event that a sale is not completed or is cancelled or delayed, we may have incurred substantial expenses, making it more difficult for us to become profitable or otherwise negatively impacting our financial results. Furthermore, because of our lengthy sales cycle, our receipt of revenue from our selling efforts may be substantially delayed, our ability to forecast our future revenue may be more limited and our revenue may fluctuate significantly from quarter to quarter.

**Our operating results could be adversely affected if we have to satisfy product warranty or liability claims.**

If our products are defective or malfunction, we could be subject to product warranty or product liability claims, such as the return of our products under warranty sold to Cisco in the third and fourth quarters of 2003 and the first quarter of 2004. These returns resulted in warranty and related charges to our financial statements of approximately \$1.0 million in the fourth quarter of 2003. While we have insurance for product liability claims for matters other than product warranty, we may not have sufficient insurance coverage for all of the claims that may be asserted against us. Moreover, these claims in the future, regardless of their outcome, could adversely affect our business.

**Our revenue and operating results may fluctuate significantly from period to period, on a quarterly or annual basis, causing volatility in our stock price.**

Our total revenue and operating results have fluctuated from quarter to quarter in the past and are expected to continue to do so in the future. As a result, you should not rely on quarter-to-quarter comparisons of our operating results as an indication of our future performance. Fluctuations in our total revenue and operating results could negatively affect the trading price of our stock. In addition, our total revenue and results of operations may, in the future, be below the expectations of analysts and investors, which could cause our stock price to decline. Factors that are likely to cause our revenue and operating results to fluctuate include the risk factors discussed throughout this section, as well as under the section of this prospectus identified as Management's Discuss and Analysis of Financial Condition and Results of Operations.

**We have grown rapidly, and a failure to manage any continued growth could reduce our potential revenue and could negatively impact our future operating results.**

In order to successfully implement our overall growth strategies, we will need to carefully and efficiently manage our planned expansion. Among other things, this will require us to continue to:

improve our existing knowledge-based processor technology and develop new processor technologies;

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implement and manage new marketing and distribution channels to penetrate different and broader markets for our products;

manage an increasing number of complex relationships with our customers, wafer foundries and other third parties;

monitor and improve our operating systems, procedures and financial controls on a timely basis;

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retain existing, and hire additional, key management and technical personnel; and

expand, train and manage our workforce and, in particular, our development, sales, marketing and support organizations.

We may not be able to adequately manage our growth or meet the foregoing objectives. A failure to do so could jeopardize our future revenue and cause our stock price to decline.

Our ability to execute our business plan and grow our business will be heavily dependent on our management team's ability to work effectively together. We may incur additional costs as we effect this integration while also satisfying the enhanced financial management requirements that will be imposed on us as we manage our growth and become a public company.

### **The cyclical nature of the semiconductor industry and the networking markets could adversely affect our operating results and our business.**

Our business is subject to the cyclical nature of the semiconductor industry, especially the market for communications integrated circuits. Historically, there have been significant downturns in this industry segment, characterized by reduced demand for integrated circuits and accelerated erosion of average selling prices. At times, these downturns have lasted for prolonged periods of time. Furthermore, from time to time, the semiconductor industry has also experienced periods of increased demand and production constraints, in which event we may not be able to have our products produced in sufficient quantities, if at all, to satisfy our customers' needs. It is likely that the communications integrated circuit business will experience similar downturns in the future and that, during such times, our business could be adversely affected. It is also likely that the semiconductor industry will experience periods of strong demand. We may have difficulty in obtaining enough product to sell to our customers or may face substantial increases in the wafer prices charged by our foundries.

In addition, the networking industry from time to time has experienced and may experience a pronounced downturn. To respond to a downturn, many networking service providers may be required to slow their research and development activities, cancel or delay new product developments, reduce their workforces and inventories and take a cautious approach to acquiring new equipment and technologies from networking OEMs, which would have a significant negative impact on our business. In the future, a downturn in the networking industry may cause our operating results to fluctuate significantly from year to year, which also may tend to increase the volatility of the price of our common stock.

### **We may not be able to protect and enforce our intellectual property rights, which could impair our ability to compete and reduce the value of our technology.**

Our success and future revenue growth depend, in part, on our ability to protect our intellectual property. We rely primarily on patent, copyright, trademark and trade secret laws, as well as confidentiality procedures, to protect our proprietary technologies and processes. However, these measures may not provide meaningful protection for our intellectual property.

We cannot assure you that any patents will issue from any of our pending applications. Any rights granted under any of our existing or future patents may not provide meaningful protection or any commercial advantage to us. For example, such patents could be challenged or



circumvented by our competitors or declared invalid or unenforceable in judicial or administrative proceedings. The failure of any patents to adequately protect our technology would make it easier for our competitors to offer similar products. We do not have foreign patents or pending applications corresponding to many of our U.S. patents and patent applications, including in some foreign countries where our products are sold or may be sold in the future. Even if foreign patents are granted, effective enforcement in foreign countries may not be available.

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With respect to our other proprietary rights, it may be possible for third parties to copy or otherwise obtain and use our proprietary technology or marks without authorization or to develop similar technology independently. Monitoring unauthorized use of our proprietary technology or marks is difficult and costly, and we cannot be certain that the steps we have taken will prevent misappropriation or unauthorized use of our technology or marks. In addition, effective patent, copyright, trademark and trade secret protection may not be available or may be limited in certain foreign countries. Many companies based in the U.S. have encountered substantial infringement problems in foreign countries, including countries in which we sell products. Our failure to effectively protect our intellectual property could reduce the value of our technology and could harm our business, financial condition and operating results.

Furthermore, we have in the past and may in the future initiate claims or litigation against third parties to determine the validity and scope of proprietary rights of others. In addition, we may in the future initiate litigation to enforce our intellectual property rights or the rights of our customers or to protect our trade secrets. Litigation by us could result in significant expense and divert the efforts of our technical and management personnel and could materially and adversely affect our business, whether or not such litigation results in a determination favorable to us.

### **Any claim that our products or our proprietary technology infringe third party intellectual property rights could increase our costs of operation and distract management and could result in expensive settlement costs.**

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights or positions, which have resulted in often protracted and expensive litigation. In the past, we have been involved in litigation relating to intellectual property rights. We are not aware of any currently pending intellectual property litigation against us. However, we have received notices from time to time that claim we have infringed upon or misappropriated intellectual property rights owned by others. We typically respond when appropriate and as advised by legal counsel. We cannot assure you that parties will not pursue litigation with respect to those allegations. We may, in the future, receive similar notices, any of which could lead to litigation against us. For example, parties may initiate litigation based on allegations that we have infringed their intellectual property rights or misappropriated or misused their trade secrets or may seek to invalidate or otherwise render unenforceable one or more of our patents. Litigation against us could result in significant expense and divert the efforts of our management, technical, marketing and other personnel, whether or not the litigation results in a determination adverse to us. We cannot assure you that we will be able to prevail or settle any such claims or that we will be able to do so at a reasonable cost. In the event of an adverse result in any such litigation, we could be required to pay substantial damages for past infringement and royalties for any future use of the technology. In addition, we may be required to cease the sale of certain products, recall certain products from the market, redesign certain products offered for sale or under development or cease the use of certain marks or names. We cannot assure you that we will be able to successfully redesign our products or do so at a reasonable cost. Additionally, we have in the past sought and may in the future seek to obtain a license to a third party's intellectual rights and have granted and may in the future grant a license to certain of our intellectual property rights to a third party in connection with a cross-license agreement or a settlement of claims or actions asserted against us. However, we cannot assure you that we would be able to obtain a license on commercially reasonable terms, or at all.

Our customers could also become the target of litigation relating to the patent and other intellectual property rights of others. This could trigger technical support and indemnification obligations in some of our license or customer agreements. These obligations could result in substantial expenses, including the payment by us of costs and damages related to claims of patent infringement. In addition to the time and expense required for us to provide support or indemnification to our customers, any such litigation could disrupt the businesses of our customers, which in turn could hurt our relations with our customers and cause the sale of our products to decrease. We cannot assure you that claims for indemnification will not be made or that if made, such claims would not have a material adverse effect on our business, operating results or financial condition. We do not have

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any insurance coverage for intellectual property infringement claims for which we may be obligated to provide indemnification. If we are obligated to pay damages in excess of, or otherwise outside of, our insurance coverage, or if we have to settle these claims, our operating results could be adversely affected.

### **If we are unable to compete effectively, our revenue and market share may be reduced.**

Our business is extremely competitive, especially during the design-in phase of networking OEMs' design cycles. Historically, we compete with the enterprise and networking divisions of large semiconductor manufacturers, such as Cypress Semiconductor and IDT, which have more established reputations, more diverse customer bases and greater financial and other resources than we do. In addition, our OEM customers may design their own integrated circuits to address their needs for network-aware processing. As we develop new applications for our knowledge-based processors and expand into new markets, we expect to face even greater competition. Our present and future competitors may be able to better anticipate customer and industry demands and to respond more quickly and efficiently to those demands, such as with product offerings, financial discounts or other incentives. Furthermore, our OEM customers may be able to develop or acquire integrated circuits that satisfy their needs faster or most cost effectively than we can. We cannot assure you that we will be able to compete effectively against these and our other competitors. If we do not compete effectively, our revenue and market share may decline.

### **Any acquisitions we make could disrupt our business and harm our financial condition.**

In the future, we may consider opportunities to acquire other businesses or technologies that would complement our current offerings, expand the breadth of our markets or enhance our technical capabilities. To date, we have not made any acquisitions, and we are currently not subject to any agreement or letter of intent with respect to potential acquisitions. Acquisitions present a number of potential challenges that could, if not met, disrupt our business operations, increase our operating costs and reduce the value to us of the acquired company, including:

integration of the acquired employees, operations, technologies and products with our existing business and products;

focusing management's time and attention on our core business;

retention of business relationships with suppliers and customers of the acquired company;

entering markets in which we lack prior experience;

retention of key employees of the acquired company; and

amortization of intangible assets, write-offs, stock-based compensation and other charges relating to the acquired business and our acquisition costs.

### **Our success may depend on our ability to comply with new or evolving industry standards applicable to our products or our business.**

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Our ability to compete in the future may depend on our ability to ensure that our products comply with evolving industry standards affecting the networking equipment and other markets in which we compete. In addition, from time to time, new industry standards may emerge which could render our products incompatible with the products of our customers or suppliers. In order to ensure compliance with the relevant standards, we may be required to devote significant time, capital and other resources to modify or redesign our existing products or to develop new products. We cannot assure you that we will be able to develop products which comply with prevailing standards. If we are unable to develop these products in a timely manner, we may miss significant business opportunities, and our revenue and operating results could suffer.

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**If an earthquake or other natural disaster disrupts the operations of our third party wafer foundries or other vendors located in high risk regions, we could experience significant delays in the production or shipment of our products.**

TSMC and UMC, which manufacture our products, along with most of our vendors who handle the assembly and testing of our products, are located in Asia. The risk of an earthquake in the Pacific Rim region is significant due to the proximity of major earthquake fault lines. In September 1999, a major earthquake in Taiwan affected the facilities of several of these third party vendors, as well as other providers of these services. As a result of this earthquake, these vendors suffered power outages and disruptions that impaired their production capacity. In March 2002 and June 2003, additional earthquakes occurred in Taiwan. The occurrence of additional earthquakes or other natural disasters could result in the disruption of the wafer foundry or assembly and test capacity of the third parties that supply these services to us. We may not be able to obtain alternate capacity on favorable terms, if at all.

**Our stock price could drop, and there could be significantly less trading activity in our stock, if securities or industry analysts downgrade our stock or do not publish research or reports about our business.**

Our stock price and the trading market for our stock are likely to be affected significantly by the research and reports concerning our company and our business which are published by industry and securities analysts. We do not have any influence or control over these analysts, their reports or their recommendations. Our stock price and the trading market for our stock could be negatively affected if any analyst downgrades our stock, publishes a report which is critical of our business, or discontinues coverage of us.

**Our common stock has experienced substantial price volatility.**

Our common stock has experienced substantial price volatility. Such volatility may occur in the future, particularly because of quarter-to-quarter variations in our actual or anticipated financial results, other semiconductor companies, or our customers. Stock price volatility may also result from product announcements by us or our competitors, or from changes in perceptions about the various types of products we manufacture and sell. In addition, our stock price may fluctuate due to price and volume fluctuations in the stock market, especially in the technology sector.

**A limited number of stockholders will have the ability to influence the outcome of director elections and other matters requiring stockholder approval.**

Our executive officers, directors and entities affiliated with them will, in the aggregate, beneficially own a significant portion of our outstanding common stock. These stockholders acting together will have the ability to exert substantial influence over all matters requiring the approval of our stockholders, including the election and removal of directors and any proposed acquisition, consolidation or sale of all or substantially all of our assets. In addition, they could dictate the management of our business and affairs. This concentration of ownership could have the effect of delaying, deferring or preventing a change in control, or impeding an acquisition, consolidation, takeover or other business combination, which might otherwise involve the payment of a premium for your shares of our common stock.

**Provisions of our certificate of incorporation and bylaws or Delaware law might delay or prevent a change of control transaction and depress the market price of our stock.**

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Various provisions of our certificate of incorporation and bylaws might have the effect of making it more difficult for a third party to acquire, or discouraging a third party from attempting to acquire, control of us. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock. Certain of these provisions eliminate cumulative voting in the election of directors, limit the right

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of stockholders to call special meetings and establish specific procedures for director nominations by stockholders and the submission of other proposals for consideration at stockholder meetings.

We are also subject to provisions of Delaware law which could delay or make more difficult a merger, tender offer or proxy contest involving us. In particular, Section 203 of the Delaware General Corporation Law prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years unless specific conditions are met. Any of these provisions could have the effect of delaying, deferring or preventing a change in control, including, without limitation, discouraging a proxy contest or making more difficult the acquisition of a substantial block of our common stock.

Our board of directors might issue up to 50,000,000 shares of preferred stock without stockholder approval on such terms as the board might determine. The rights of the holders of common stock will be subject to, and might be adversely affected by, the rights of the holders of any preferred stock that might be issued in the future.

### **The price of our stock could decrease as a result of shares being sold in the market, including sales by directors, officers and other significant stockholders.**

Sales of a substantial number of shares of common stock in the public market could adversely affect the prevailing market price of our common stock from time to time. The number of shares of our common stock available for sale in the public market is limited by restrictions under the Securities Act of 1933, as amended, but taking into account sales of stock made in accordance with the provisions of Rules 144(k), 144, 145 and 701, substantially all the shares of our common stock currently outstanding are eligible for sale in the public market. We believe that as of December 31, 2004, approximately 8.9 million shares (including exercisable options as of such date) were held by our directors, officers and holders of 5% or more of our common stock.

Each of our executive officers has entered into a plan for selling a portion of his or her shares of common stock in the manner described under Rule 10b5-1 of the Securities Exchange Act of 1934. Each plan is non-discretionary and is administered by an independent brokerage firm. Each plan provides for aggregate sales of between 33,000 and 140,000 shares in blocks of at least 1,000 shares in specified months pursuant to limit orders at specified prices. The duration of each plan is through December 31, 2005. Pursuant to these plans, these executive officers may sell up to 585,860 shares of common stock combined during 2005. Sales of the shares are further subject to the volume restrictions set forth in SEC Rule 144(e). Each plan provides for termination upon the completion of the specified trading program, the instruction of the stockholder, or the occurrence of other specified events, whichever is earliest. All of the shares are sold through broker-dealers in ordinary market transactions. In addition, subject to compliance with applicable securities laws, each of these executive officers may sell shares of common stock outside of these plans. Pre-designated trading under these plans may cause unexpected declines in the market price of our common stock.

### **Our stockholder rights plan could prevent stockholders from receiving a premium over the market price for their shares from a potential acquirer.**

We adopted a stockholder rights plan that generally entitles our stockholders to rights to acquire additional shares of our common stock when a third party acquires 15.0% of our common stock or commences or announces its intent to commence a tender offer for at least 15.0% of our common stock, other than for certain stockholders that were stockholders prior to our initial public offering as to whom this threshold is 20.0%. This plan could delay, deter or prevent an investor from acquiring us in a transaction that could otherwise result in stockholders receiving a premium over the market price for their shares of common stock.

**We may need to obtain financing in order to fund our growth strategy.**

We believe that we have or will have access to capital, including the net proceeds of our initial public offering, sufficient to satisfy our working capital requirements for at least the next 12 months. After that time, it



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may be necessary for us to raise additional funds to support our growth. We cannot assure you that we will be able to obtain financing when needed or that, if available to us, the terms will be acceptable to us. If we issue equity securities in any financing, the new securities may have rights and preferences senior to our shares of common stock, and the ownership interest in us of our current stockholders will be proportionately reduced. If we issued debt securities, they will rank senior to all equity securities. If we are unable to raise additional capital, we may not be able to implement our growth strategy, and our business could be harmed significantly.

**Changes in laws and regulations that affect the governance of public companies have increased our operating expenses and will continue to do so.**

Recently enacted changes in the laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002 and the listing requirements for The Nasdaq National Market have imposed new duties on us and on our executives, directors, attorneys and independent accountants. In order to comply with these new rules, we have hired and expect to hire additional personnel and use additional outside legal, accounting and advisory services, which have increased and are likely to continue increasing our operating expenses. In particular, we expect to incur additional administrative expenses as we implement Section 404 of the Sarbanes-Oxley Act, which requires management to report on, and our Independent Registered Public Accounting Firm to attest to, our internal controls. For example, we expect to incur significant expenses in connection with the implementation, documentation and testing of our existing and possibly newly implemented control systems. Management time associated with these compliance efforts necessarily reduces time available for other operating activities, which could adversely affect operating results. If we are unable to achieve full and timely compliance with these regulatory requirements, we could be required to incur additional costs, expend additional management time on remedial efforts and make related public disclosures that could adversely affect our stock price and result in securities litigation.

**Executive Officers of the Registrant**

The following table provides the names, ages and offices of each of our executive officers as of February 28, 2005:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Ronald Jankov	46	Director, Chief Executive Officer and President
Don Witmer	51	Vice President and Chief Financial Officer
Dimitrios Dimitrelis	47	Vice President of Engineering
Martyn Humphries	45	Vice President of Marketing
Ibrahim Korgav	56	Senior Vice President of Manufacturing and Business Operations
Varadarajan Srinivasan	54	Director, Vice President of Product Development and Chief Technical Officer
Marcia Zander	42	Vice President of Sales
Roland Cortes	40	Senior Director of Legal Affairs and IP Management and Secretary

*Ronald Jankov* has served as our President, Chief Executive Officer and as a member of our board of directors since April 2000. From September 1995 to September 1999, Mr. Jankov was Vice President of Sales and then Vice President and General Manager for the Multimedia Division of NeoMagic Corporation, a provider of semiconductors for handheld systems. Prior to that time, Mr. Jankov was Vice President of Cyrix Corporation, a microprocessor company, and held various engineering, sales and management positions at other semiconductor

companies, including LSI Logic Corp. and Texas Instruments.

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*Donald Witmer* has served as our Vice President of Finance and Chief Financial Officer since January 2004. From September 2001 to December 2003, Mr. Witmer was the chairman of the board and Chief Executive Officer of Home Director, Inc., a home networking company. From December 1999 to September 2001, Mr. Witmer was the chairman of the board and Chief Executive Officer of Digital Interiors, Inc., a home networking company that was acquired by Home Director in October 2000. From June 1997 to December 1999, Mr. Witmer was the President and Chief Executive Officer of Amazing Smart Card Technologies, Inc., a smart card solutions company. In addition, Mr. Witmer has served previously as Chief Financial Officer of each of Catalyst Semiconductor, Inc. and DeltaPoint, Inc. and as an accountant with PricewaterhouseCoopers LLP.

*Dimitrios Dimitrelis* has served as our Vice President of Engineering since July 2002. From July 1999 to March 2002, Mr. Dimitrelis was Director of Engineering for Vitesse Semiconductor Corp., a communications integrated circuit company, where he was primarily responsible for the development of a 10G network processor. From May 1998 to June 1999, Mr. Dimitrelis was Director of ASIC Development for XaQti Corporation, a manufacturer of digital network processors, which was acquired by Vitesse Semiconductor Corp.

*Martyn Humphries* has served as our Vice President of Marketing since November 2003. Mr. Humphries resigned as Vice President of Marketing effective March 31, 2005. From April 2000 to November 2003, Mr. Humphries was Senior Director of one of the business units of Broadcom Corporation, a communications integrated circuit company. From October 1995 to April 2000, Mr. Humphries held various positions with Insight Electronics, a division of Memec, Inc., a global semiconductor distributor, including as Director of Technical Marketing within North America.

*Ibrahim Korgav* has served as our Senior Vice President of Manufacturing and Business Operations since March 2002. From April 2001 to March 2002, Mr. Korgav was a member of the venture capital firm Global Catalyst Partners, during which time he consulted with several semiconductor companies. From April 2000 to March 2001, Mr. Korgav was Senior Vice President of Manufacturing Operations for Zaffire Inc., an optical transport systems company. From June 1994 to March 2000, Mr. Korgav was Vice President of Manufacturing Operations for NeoMagic Corporation.

*Varadarajan Srinivasan* has served as our Vice President of Product Development since March 1996, as our Chief Technical Officer since August 2000, and as a member of our board since February 2000. From January 1989 to March 1996, Mr. Srinivasan was a director of Design Engineering for Quality Semiconductor, Inc., working with SRAMs and logic products.

*Marcia Zander* has served as our Vice President of Sales since July 1999. From July 1987 to July 1999, Ms. Zander held various sales and sales management positions, including General Sales Manager, with QuadRep, Inc., a manufacturer's representative firm, who represented large semiconductor and other electronic component companies. From June 1984 to June 1987, Ms. Zander worked in sales and sales management for AVX Corporation and Corning Electronics.

*Roland Cortes* has served as our Secretary since May 2004, as our Senior Director of Legal Affairs and IP Management since July 2002, and as our Director of Legal Affairs and IP Management since April 1999. From December 1995 to April 1999, Mr. Cortes was an intellectual property attorney with Blakely, Sokoloff, Taylor & Zafman LLP.

## **ITEM 2. PROPERTIES.**

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Our main executive, administrative and technical offices occupy approximately 31,600 square feet in Mountain View, California, under a lease that expires in July 2011. We believe that these facilities are adequate for our current needs and that suitable additional or substitute space will be available as needed to accommodate foreseeable expansion of our operations.

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**ITEM 3. LEGAL PROCEEDINGS.**

We are not involved in any legal proceedings that management believes will have a material adverse effect our business.

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

Not applicable.

**Table of Contents****PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock is traded on the Nasdaq National Market under the symbol NETL. Public trading commenced on July 9, 2004. Prior to that, there was no public market for our common stock. The following table sets forth, for the periods indicated, the intra-day high and low per share sale prices of our common stock, as reported by the Nasdaq National Market on its consolidated transaction reporting system.

	<u>High</u>	<u>Low</u>
<i>Fiscal 2005:</i>		
First quarter of Fiscal 2005 (through February 28, 2005)	\$ 13.35	\$ 8.55
<i>Fiscal 2004:</i>		
Fourth quarter	\$ 11.35	\$ 5.92
Third quarter (from July 9, 2004)	\$ 12.50	\$ 6.40

As of February 28, 2005, there were approximately 328 holders of record (not including beneficial holders of stock held in street names) of our common stock.

**Dividend Policy**

We have not declared or paid cash dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future. We expect to retain future earnings, if any, to fund the development and growth of our business. Our board of directors will determine future dividends, if any.

**Recent Sales of Unregistered Securities**

During the fiscal year ended December 31, 2004, we issued and sold the following unregistered securities. None of these sales involved an underwriter, finder or other agent or the payment of any selling commission to any person.

1. We issued options to purchase an aggregate of 679,124 shares of common stock to employees, directors and consultants at an exercise price ranging from \$2.00 to \$13.00 per share pursuant to our 2000 Stock Plan and issued an aggregate of 445,227 shares of our common stock upon exercise of options issued pursuant to the 2000 Stock Plan. In addition, during such period, we have issued stock purchase rights with respect to an aggregate of 3,375 shares as compensation for services rendered (including as incentive bonuses) for no additional consideration. These securities were issued in reliance on Rule 701 promulgated under Section 3(b) of the Securities Act.

2. We issued to 17 investors an aggregate of 126,750 shares of our common stock upon exercise of warrants previously issued. The exercise price for these warrants ranged from \$0.80 to \$2.00, and these exercises resulted in aggregate proceeds to us of \$167,200. These shares were issued in reliance on Section 3(a)(9) of the Securities Act or Regulation D promulgated under the Securities Act.
  
3. In March 2004, we issued and sold to 11 accredited investors convertible promissory notes in the aggregate principal amount of \$7,604,100 and warrants to purchase an aggregate of 76,500 shares of our common stock at a warrant exercise price per share of \$2.00. The aggregate purchase price for the notes and warrants was \$7,650,000. These securities were issued in reliance on Regulation D promulgated under the Securities Act.

The sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act, Regulation D promulgated thereunder, or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving a public offering or

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transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under Rule 701. The purchasers of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution of the securities, and appropriate legends were affixed to the share certificates and instruments issued in such transactions.

We are furnishing the following information with respect to the use of proceeds we received from our initial public offering in July 2004:

Gross proceeds to the company		\$ 44,842,512
Offering expenses:		
Underwriting fees	\$ 3,138,976	
Other offering expenses (estimated)	2,442,000	
	<u>                    </u>	
Total offering expenses		<u>5,580,976</u>
Net proceeds to the company		<u>\$ 39,261,536</u>

As of the date of this report, we used the net proceeds of the offering as follows:

We used \$10.5 million to repay existing debt under our credit lines with Silicon Valley Bank;

We used \$7.6 million to repay the convertible promissory notes we issued and sold in March 2004; and

We invested the remaining net proceeds in short-term, interest-bearing instruments, pending their use to fund working capital and other general corporate purposes, including capital expenditures and research and development.

**Issuer Purchases of Equity Securities**

We did not repurchase any shares of our common stock during the fourth quarter of fiscal 2004.



**Table of Contents****ITEM 6. SELECTED FINANCIAL DATA**

The following selected consolidated financial data are qualified by reference to, and should be read in conjunction with, Management's Discussion and Analysis of Financial Condition and Results of Operations and the Financial Statements and related Notes included in Item 8 of this report. The selected balance sheet data as of December 31, 2004 and 2003 and selected statements of operations data for the years ended December 31, 2004, 2003 and 2002, are derived from our audited financial statements included elsewhere in this report. The selected balance sheet data as of December 31, 2002, 2001 and 2000 and the selected statements of operations data for the years ended December 31, 2001 and 2000 were derived from audited financial statements not included in this report. Our historical results are not necessarily indicative of our future results.

Statement of Operations Data:	Year Ended December 31,				
	2000	2001	2002	2003	2004
	(in thousands, except per share data)				
Revenue:					
Product revenue	\$ 1,611	\$ 1,634	\$ 2,592	\$ 10,015	\$ 46,705
License and engineering service revenue	50	378	303	3,520	1,128
<b>Total revenue</b>	<b>1,661</b>	<b>2,012</b>	<b>2,895</b>	<b>13,535</b>	<b>47,833</b>
Cost of revenue:					
Product revenue	947	1,031	1,634	20,310	26,664
License and engineering service revenue		108	89	5	
<b>Total cost of revenue</b>	<b>947</b>	<b>1,139</b>	<b>1,723</b>	<b>20,315</b>	<b>26,664</b>
<b>Gross margin</b>	<b>714</b>	<b>873</b>	<b>1,172</b>	<b>(6,780)</b>	<b>21,169</b>
Operating expenses:					
Research and development	5,882	11,641	17,133	18,312	17,259
Selling, general and administrative	3,059	4,965	4,184	4,405	6,587
Stock-based compensation			4	2,675	5,511
<b>Total operating expenses</b>	<b>8,941</b>	<b>16,606</b>	<b>21,321</b>	<b>25,392</b>	<b>29,357</b>
<b>Loss from operations</b>	<b>(8,227)</b>	<b>(15,733)</b>	<b>(20,149)</b>	<b>(32,172)</b>	<b>(8,188)</b>
Interest expense	(487)	(178)	(481)	(166)	(4,076)
Interest income	511	566	759	466	382
Other income (expense), net	80	17	(48)	(88)	(149)
<b>Net loss</b>	<b>\$ (8,123)</b>	<b>\$ (15,328)</b>	<b>\$ (19,919)</b>	<b>\$ (31,960)</b>	<b>\$ (12,031)</b>
<b>Net loss per common share - basic and diluted</b>	<b>\$ (3.76)</b>	<b>\$ (8.10)</b>	<b>\$ (7.49)</b>	<b>\$ (11.01)</b>	<b>\$ (1.17)</b>
<b>Shares used for calculation - basic and diluted</b>	<b>2,160</b>	<b>1,892</b>	<b>2,658</b>	<b>2,903</b>	<b>10,318</b>

	December 31,				
	2000	2001	2002	2003	2004
	(in thousands)				
<b>Balance Sheet Data:</b>					
Cash, cash equivalents and short-term investments	\$ 4,147	\$ 26,169	\$ 39,690	\$ 16,150	\$ 41,411
Working capital	(3,177)	23,991	35,233	6,896	45,283
Total assets	6,891	31,585	44,815	31,844	59,454
Debt	6,495	3,221	1,471	10,396	1,317
Redeemable convertible preferred stock	17,868	58,591	91,600	91,600	
Stockholders equity (deficit)	(19,247)	(34,146)	(53,733)	(82,351)	48,102

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

#### **Overview**

We are a fabless semiconductor company that designs, develops, and markets high performance knowledge-based processors for a variety of advanced Internet, corporate and other networking systems, such as routers, switches, network access equipment and networked storage devices offered by companies such as Alcatel, ARRIS, Atrica, Cisco, Extreme Networks, Fujitsu, Foundry Networks, Force10, Hitachi, Huawei, Juniper Networks and Nortel Networks.

We organized our business in 1995 as a California limited liability company and, incorporated in Delaware in 2000. On July 14, 2004, we completed an initial public offering of our common stock at a price of \$12.00 per share. We sold 3,736,876 shares and additional 2,038,124 shares were sold by selling stockholders. We received \$39.3 million in proceeds after deducting underwriters' fees and other transaction costs.

We design and develop integrated circuits to address basic forwarding functions used in networking systems for the core and enterprise networking markets. We introduced our first product in July 1997, which generated minimal revenue through sales to networking original equipment manufacturers, or OEMs. To respond to evolving networking requirements, we developed our next generation of products, our network search engines, which featured more advanced processing capabilities. From 1998 to 2001, we introduced several of these network search engine products. During this time, our revenue from these products was low, and we experienced significant net operating losses.

In December 2002, we entered into a strategic agreement with Micron Technology Inc., or Micron, to facilitate broader acceptance of our knowledge-based processors and to access additional manufacturing capacity. In early 2003, Micron announced a significant restructuring of its operations, which effectively eliminated any future development activities under this agreement, and we restructured the agreement to limit the products covered by the agreement. Under the current license and agreement, Micron is obligated to pay us fees totaling \$5.3 million, of which \$3.5 million and \$1.1 million has been recognized as engineering service revenue in 2003 and 2004, respectively. The remaining \$0.7 million is due to us upon completion of a certain milestone, which we expect to recognize as revenue by the end of 2005. After completion of the remaining milestone, we do not expect any additional revenue to be generated under this agreement.

In the third quarter of 2003, industry economic conditions improved and we accelerated production of a customized version of our knowledge-based processors designed specifically for Cisco. In the third and fourth quarters of 2003, we shipped a substantial quantity of these knowledge-based processors to Cisco, which processors met our yield objectives and passed the qualification and testing procedures that Cisco and we had applied to them. At the time, the number of processors passing these procedures resulted in production yields that were within our expectations. We continued to ship a significant number of these processors through the end of 2003; however, in the first quarter of 2004, Cisco began to apply more rigorous testing on their networking systems that identified certain situations in which our products failed to perform to specification. Cisco returned approximately 11,000 units of these products to us under the terms of our standard warranty. Of these, approximately 5,000 units were shipped in 2003. We retested the 11,000 returned units and approximately 4,000 units passed the rescreening process. We reshipped those units and replaced the remaining returned units with our processors that passed more stringent testing procedures. Yield on products tested with more stringent testing procedures was unusually low resulting in a cost per unit that exceeded selling price. To improve yield on future products, we modified the design. Since that time, our production yields have improved to projected levels. As a result of these events, we have reduced the carrying value of our inventory at December 31, 2003 by \$7.0 million to properly record them at their estimated market value. This includes a \$6.4 million transfer of charges recognized in the third quarter of 2003 for adverse purchase commitments. To date, the replacement products and products incorporating the design modification have met and continue to meet Cisco's testing and qualification requirements.



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We have recently experienced significant revenue growth, primarily due to a rapid rise in new customer orders for our knowledge-based processors, which began in the second half of 2003. Our product revenue increased 366% to \$46.7 million during the year ended December 31, 2004 from \$10.0 million in 2003. The volume of our knowledge-based processor shipments increased more than 600% during the year ended December 31, 2004, compared to that of 2003. Our total revenue for the year ended December 31, 2004 and 2003 included non-recurring license fees of approximately \$1.1 million and \$3.5 million, respectively, related to our license agreement with Micron Technology, Inc. We do not expect similar revenue growth rates in future periods, nor do we expect to receive any significant revenues from non-recurring engineering services beyond 2004.

As a fabless semiconductor company, our business model is less capital intensive because we rely on third parties to manufacture, assemble, and test our products. In transitioning from a design and development company to volume production as a fabless semiconductor company, we required significant funds for our ramp up in production to support increased sales of our knowledge-based processors. For example, we required additional funds to procure product mask sets, order elevated quantities of wafers from our foundry partners, perform qualification testing and assemble and test our products.

We employ a direct sales force as well as a sales representative network to sell our products. The majority of our revenue comes from customers located in the United States. All revenue to date has been denominated in U.S. dollars.

Our product sales cycles can take up to 24 months to complete and volume production can take an additional six months to be achieved, if at all. Cancellations of customer orders or changes in product specifications could result in the loss of anticipated sales without allowing us sufficient time to reduce our inventory or operating expenses. Our recent rapid revenue growth makes it difficult for us to assess the impact of seasonal factors on our business.

We recognize revenue at the time of shipment to our customers and our international stocking sales representatives. Our revenue consists primarily of sales of our integrated circuits to networking OEMs and contract manufacturers. Initial sales of our products for a new design are usually made directly to networking OEMs. Once a design enters production, a networking OEM often outsources its manufacturing to contract manufacturers that purchase our products directly from us.

Since we purchase all wafers from suppliers with fabrication facilities and outsource the assembly and testing to third party vendors, a significant portion of our costs of revenue consists of payments to our third party vendors. We do not have long-term agreements with any of our suppliers and rely upon them to fulfill our orders.

Research and development expenses consist primarily of compensation and related costs for personnel as well as costs related to mask procurements and tape-outs, depreciation, software maintenance and facilities costs. All research and development costs are expensed in the period incurred. In order for us to remain competitive, we believe a significant portion of our operating expenses will continue to be related to research and development efforts. We also believe research and development headcount will increase in the future, and that research and development costs will increase in absolute dollars but decline as a percentage of revenue.

Selling expenses consist primarily of compensation and related costs for sales and marketing personnel, marketing programs, travel, facilities overhead and bonuses and commissions for independent sales representatives. General and administrative expenses consist primarily of compensation and related costs for finance and accounting, patent and corporate legal expenses, information technology and facilities overhead.

**Critical Accounting Policies**

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the U.S. requires management to make fair and reasonable estimates and assumptions that

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affect reported amounts of assets, liabilities and operating expenses during the period reported. The following accounting policies require management to make estimates and assumptions. These estimates and assumptions are reviewed periodically and the effects of revisions are reflected in the period that they are determined to be necessary. If actual results differ significantly from management's estimates, our financial statements could be materially impacted. Our estimates are guided by observing the following critical accounting policies.

*Revenue Recognition.* One of the criteria for revenue recognition is that the collectability of the resulting receivable is reasonably assured. Determination of this criterion is based on management's judgments regarding the collectability of those fees. The recent growth and the establishment of new or more significant customer relationships mean that management does not have a substantial history of making these judgments. To date, our customers consist primarily of large, well-established publicly traded companies. Should our customer base change to include smaller, less-established companies, and collectability of accounts receivable from these customers be uncertain, revenue recognition for a reporting period may be negatively affected. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected.

*Inventory Valuation and Adverse Purchase Commitments.* We value our inventories at the lower of cost or market. We record inventory reserves for estimated obsolescence or unmarketable inventories based upon assumptions about future demand and market conditions. These estimates are based on a 12-month forecast prepared by management. If our inventory on hand is in excess of our forecast, the excess amounts are written off. If actual market conditions are less favorable than those expected by management, additional inventory reserves may be required. The carrying value of inventory and the determination of possible adverse purchase commitments are dependent on our estimate of the yield that will be achieved, or the percent of good products identified when the product is tested. A small change in yield could result in a significant adjustment and have a significant impact on our financial position and results of operations.

During the year ended December 31, 2003, we recorded charges to cost of revenue of \$10.4 million as a result of a low expected yield on work-in-process inventories on hand and on order with our vendors that resulted in the estimated cost of finished product exceeding its estimated market value. The estimated cost was based on actual yield experience and estimated costs to test and package our products. These estimates were based on historical costs of similar products. The charge reduced the carrying value of our inventory to record them at their estimated market value and established reserves to cover expected future losses and adverse purchase commitments. While we have implemented a modified design of some of our products to improve production yields, we may experience lower than expected yields in the future, primarily upon the introduction of new products.

*Warranty Accrual.* Our products are subject to warranty and we provide for the estimated future costs of replacement upon shipment of the product in the accompanying statements of operations. Our warranty accrual is estimated based on historical claims compared to historical revenue and assumes that we have to replace products subject to a claim. For new products, we use our historical percentage for the appropriate class of product. Should actual product failure rates differ from our estimates, revisions to the estimated warranty liability would be required. During the fourth quarter of 2003, we recorded a charge of \$1.0 million for the expected costs of replacing product that was returned in early 2004. This level of warranty claims was much higher than what we experienced prior to 2004. We have subsequently implemented more stringent testing procedures to reduce the level of warranty claims when compared to the volume shipped. In the future, as we continue to introduce new products, warranty expenses may increase.

*Allowance for Doubtful Accounts.* In order to determine the collectability of our accounts receivable, we continually assess factors such as previous customer transactions and the credit-worthiness of the customer. To date, our accounts receivable write-offs have been immaterial. We maintain allowances for doubtful accounts for estimated losses resulting from the inability of certain customers to make required payments. If the financial conditions of our customers were to deteriorate, additional allowances may be required.

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*Accounting for Income Taxes.* We account for income taxes under the provisions of Statement of Financial Accounting Standards (SFAS) No. 109 Accounting for Income Taxes. In applying SFAS 109, we are required to estimate our current tax exposure together with assessing temporary differences resulting from differing treatments of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. Significant management judgment is required to assess the likelihood that our deferred tax assets will be recovered from future taxable income. We have established a full valuation allowance against our deferred tax assets due to uncertainties regarding our ability to realize these assets. These uncertainties relate primarily to the level of our historical losses and the absence of objective evidence supporting the future realization of these assets. In the event we were to determine that it is more likely than not that we are able to realize our deferred tax assets in the future, an adjustment to the valuation allowance would increase income in the period such determination is made.

*Stock-based Compensation.* We account for stock-based employee compensation arrangements in accordance with provisions of Accounting Principals Board, or APB, Opinion No. 25, Accounting for Stock Issued to Employees, and Financial Accounting Standards Board, or FASB, Interpretation, or FIN No 28, Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans, and comply with the disclosure provisions of SFAS No. 123, Accounting for Stock-Based Compensation and SFAS No. 148, Accounting for Stock-Based Compensation Transition and Disclosure. Under APB Opinion No. 25, compensation cost is recognized based on the difference, if any, on the date of grant between the fair value of our stock and the amount an employee must pay to acquire the stock. SFAS No. 123 defines a fair value based method of accounting for an employee stock option or similar equity investment. In December 2004, the FASB issued SFAS No. 123 (revised 2004), Share-Based Payment. SFAS No. 123(R) would require us to measure all employee stock-based compensation awards using a fair value method and record such expense in its financial statements. In addition, the adoption of SFAS No. 123(R) will require additional accounting related to the income tax effects and additional disclosure regarding the cash flow effects resulting from share-based payment arrangements. SFAS No. 123(R) is effective for us beginning in the third quarter of fiscal 2005. The adoption of SFAS No. 123(R) will have a material impact on our results of operations, financial position and statement of cash flows. We are evaluating what transition method and what pricing model to select upon adoption.

We award a limited number of stock options and warrants to non-employees. We account for non-cash stock-based expense issued to non-employees in accordance with the provisions of SFAS No. 123 and Emerging Issues Task Force Pronouncement No. 96-18, Accounting for Equity Investments That Are Issued to Non-Employees for Acquiring, or in Conjunction with Selling, Goods or Services. For these options and warrants, we recognize the stock-based expense over the service period of the underlying awards, based on an estimate of their fair value on the vesting dates using the Black-Scholes option-pricing model.



**Table of Contents****Results of Operations***Comparison of Year Ended December 31, 2004 to Year Ended December 31, 2003***Revenue, cost of revenue and gross profit**

The table below sets forth the fluctuations in revenue, cost of revenue and gross profit data for the years ended December 31, 2004 and 2003 (in thousands, except percentage data):

	Year ended December 31, 2004	Percentage of Revenue	Year ended December 31, 2003	Percentage of Revenue	Year-to-Year Increase (Decrease)	Increase (Decrease) Percentage
Revenue:						
Product revenue	\$ 46,705	97.6%	\$ 10,015	74.0%	\$ 36,690	366.4%
License and engineering service revenue	1,128	2.4%	3,520	26.0%	(2,392)	-68.0%
<b>Total revenue</b>	<b>47,833</b>	<b>100.0%</b>	<b>13,535</b>	<b>100.0%</b>	<b>34,298</b>	<b>253.4%</b>
Cost of revenue:						
Cost of product revenue	26,664	55.7%	20,310	150.1%	6,354	31.3%
Cost of license and engineering service revenue			5	0.0%	(5)	-100.0%
<b>Total cost of revenue</b>	<b>26,664</b>	<b>55.7%</b>	<b>20,315</b>	<b>150.1%</b>	<b>6,349</b>	<b>31.3%</b>
<b>Gross profit (loss)</b>	<b>\$ 21,169</b>	<b>44.3%</b>	<b>\$ (6,780)</b>	<b>-50.1%</b>	<b>\$ 27,949</b>	<b>412.2%</b>

*Revenue.* The increase in total revenue during the year ended December 31, 2004 resulted from the growth in sales of our knowledge-based processors. During the year ended December 31, 2004, the units of knowledge-based processor shipments increased more than 600% compared to that of the year ended December 31, 2003. Revenue from sales to one of Cisco Systems, Inc.'s contract manufacturers, Solectron, represented 69% of total revenue for the year ended December 31, 2004 compared to 27% during the year ended December 31, 2003.

*Cost of Revenue.* The cost of revenue increased to \$26.7 million for the year ended December 31, 2004 primarily due to the increased unit shipments of knowledge-based processors. During the second half of the year ended December 31, 2004, we reassessed the warranty accrual requirements based on our most recent warranty expense data as our manufacturing yield improved to projected levels. As a result of this reassessment, we released approximately \$0.3 million of warranty accrual to cost of sales during the third quarter of fiscal 2004. We also recorded a provision for excess and obsolete inventory reserve of \$0.6 million during the year ended December 31, 2004 as we determined that a portion of inventory related to our previous generation products was unsalable. The cost of revenue for the year ended December 31, 2003 was adversely affected by the low manufacturing yield of our products due to Cisco's applying more rigorous testing on their networking systems that identified certain situation in which our products failed to perform to specification. As a result, Cisco returned a portion of those products under the terms of our standard warranty. We recorded charges of approximately \$11.4 million in order to write down the carrying value of our inventory to market and establish reserves for warranty and adverse purchase commitments, which resulted in the negative gross margin. To

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improve yield, we modified the design of our knowledge-based processors. To date, the products incorporating the design modification have met and continue to meet Cisco's testing and qualification requirements and our production yields have improved to projected levels.

*Gross Profit /Gross Margin.* Gross margin increased to 44.3% during the year ended December 31, 2004 from (50.1)% during the year ended December 31, 2003. Excluding the charges related to Cisco returns of \$11.4 million described above, gross margin for the year ended December 31, 2003 would have been 34.1%. The improvement in gross margin from 2003 to 2004, excluding the effect of Cisco returns in 2003, was primarily

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due to the sales growth of knowledge-based processors, which have a higher average selling price than other products, and continued improvements in production yields for these products. Further, gross margin in 2004 was favorably impacted by the sale of \$0.8 million of products that had been fully reserved in prior periods and accordingly had no associated costs of revenue.

**Operating expenses**

The table below sets forth operating expense data for the years ended December 31, 2004 and 2003 (in thousands, except percentage data):

	Year ended December 31, 2004	Percentage of Revenue	Year ended December 31, 2003	Percentage of Revenue	Year-to-Year Increase (Decrease)	Increase (Decrease) Percentage
Operating expenses:						
Research and development	\$ 17,259	36.1%	\$ 18,312	135.3%	\$ (1,053)	-5.8%
Selling, general and administrative	6,587	13.8%	4,405	32.5%	2,182	49.5%
Stock-based compensation	5,511	11.5%	2,675	19.8%	2,836	106.0%
<b>Total operating expenses</b>	<b>\$ 29,357</b>	<b>61.4%</b>	<b>\$ 25,392</b>	<b>187.6%</b>	<b>\$ 3,965</b>	<b>15.6%</b>

*Research and Development Expenses.* Research and development expenses decreased during the year ended December 31, 2004 primarily due to decreases in product development and qualification expenses of \$1.8 million and depreciation expense of \$0.7 million. During the year ended December 31, 2003, product development and qualification expenses were significantly higher as we began to ramp up the production of knowledge-based processor products. The decrease in depreciation expense was primarily due to some of our software design tools being fully depreciated prior to 2004. The decreases in product development and qualification expenses and depreciation expense were offset by the increases in consulting fees of \$0.4 million, common expense allocation of \$0.4 million, mask expenses of \$0.2 million. The remainder of the change in research and development expenses was caused by individually minor items.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses increased during the year ended December 31, 2004 primarily due to the increases in payroll related expenses of \$0.4 million, directors and officers' insurance premium of \$0.4 million, audit and legal fees of \$0.6 million, consulting fees of \$0.3 million, commission expense of \$0.2 million and trade show expenses of \$0.1 million. The increase in payroll related expenses was caused by the increase in headcount to support our growing operations. The increases in directors and officers' insurance premium and legal and audit fees were the results of the Company's becoming a publicly-traded company in July 2004. The increase in commission expense was due to the increase in sales of our knowledge-based processors in 2004. The increases in consulting and trade show expenses were due to the increased sales and marketing activities to promote our knowledge-based processors. The remainder of the change in selling, general and administrative expenses was caused by individually minor items.

*Stock-based compensation Expense.* The increase in stock-based compensation amortization was primarily due to grants of stock options prior to our initial public offering with exercise prices below the fair value of our common stock. Stock-based compensation expense is based on the difference between the exercise price of the option grants and the fair value of our common stock at the time of such grants.

**Table of Contents****Other items**

The table below sets forth other data for the years ended December 31, 2004 and 2003 (in thousands, except percentage data):

	Year ended December 31, 2004	Percentage of Revenue	Year ended December 31, 2003	Percentage of Revenue	Year-to-Year Change	Change Percentage
Other income (expense), net:						
Interest income	382	0.8%	\$ 466	3.4%	\$ (84)	-18.0%
Interest expense	(4,076)	-8.5%	(166)	-1.2%	(3,910)	-2355.4%
Other income (expense), net	(149)	-0.3%	(88)	-0.7%	(61)	-69.3%
<b>Total interest and other income (expense), net</b>	<b>\$ (3,843)</b>	<b>-8.0%</b>	<b>\$ 212</b>	<b>1.6%</b>	<b>\$ (4,055)</b>	<b>-1912.7%</b>

*Interest and Other Income (Expense), net.* The significant increase in interest and other income (expense), net during the year ended December 31, 2004 was primarily due to the amortization of beneficial conversion feature and fair value of warrants that were originally recorded in connection with the issuance of promissory notes in March 2004. Both the beneficial conversion feature and fair value of warrants of \$2.5 million and \$1.0 million, respectively, were originally being amortized over the term of the promissory notes. However, the promissory notes were repaid in full in July 2004, at which time the remaining value of beneficial conversion feature and warrants were charged entirely to interest expense.

**Comparison of Year Ended December 31, 2003 to Year Ended December 31, 2002**

*Revenue.* Total revenue increased from \$2.9 million during 2002 to \$13.5 million during 2003, representing an increase of 468.5%. Product revenue increased from \$2.6 million during 2002 to \$10.0 million during 2003, representing an increase of 386.4%. Most of the increase came from shipments of knowledge-based processors first introduced in the prior year, and increased demand for products of our customers that incorporated our knowledge-based processors. In particular, in 2003, our knowledge-based processor, network search engine and CFP products generated revenue of \$5.8 million or 57.8% of product revenue, \$3.9 million or 39.2% of product revenue, and \$307,000 or 3.1% of product revenue, respectively. During 2002, those products generated revenue of \$189,000, or 7.3%, \$2.2 million, or 86.3%, and \$165,000 or 6.4% of product revenue, respectively. The year-over-year increase in both revenue and percent of product revenue for our knowledge-based processors reflected the increased customer acceptance of those products, especially with Cisco, and their higher average selling price compared to our other products. Revenue from sales of our network search engines also increased in 2002, because of a significant increase in orders for customer products in which we achieved design wins in prior years. In addition, the mix of network search engines sold in 2003 included more of the versions with a higher average selling price than in 2002.

Also during 2003, we recognized license and engineering service revenue of \$3.5 million related to a license and technology transfer agreement with Micron. The agreement was initially signed in late 2002 but subsequently amended in early 2003. The contract as amended requires Micron to make certain payments to us upon completion of development milestones related to one of our knowledge-based processors. We recognize revenue under this contract when the milestone is achieved and payment is made. As of March 31, 2004, payments of approximately \$1.3 million remain under this contract, which are due to us upon completion of certain milestones.

*Cost of Revenue.* Product cost increased from \$1.6 million in 2002 to \$20.3 million in 2003. The increase resulted primarily from an increase in total revenue and \$11.4 million in production, reserves and warranty

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related charges associated with knowledge-based processors that Cisco returned to us under our standard warranty terms.

*Gross Margin.* Gross margin decreased from 40.5% in 2002 to (50.1%) in 2003. Product margin decreased from 37.0% to (102.8%) during this period, while engineering service margin increased from 70.6% to 99.9% during the period. In 2003, we began high volume shipments of our knowledge-based processors to Cisco. While these processors had passed the qualification and testing procedures applied by Cisco and us at the time of shipment, Cisco subsequently began to apply more rigorous testing on their networking systems that identified certain situations in which our products failed to perform to specification. As a result, Cisco returned a portion of those products under the terms of our standard warranty. We recorded additional charges of approximately \$11.4 million in order to write down the carrying value of our inventory to market and establish reserves for warranty and adverse purchase commitments, which resulted in the negative gross margin. These charges account for 49.8% of our total cost of product revenue for the year ended December 31, 2003.

Gross margins on engineering service revenues increased to 99.9% for the year ended December 31, 2003 from 70.6% in 2002. The increase was due to recognition of license and development fees from Micron which had virtually no related costs.

*Research and Development Expenses.* Research and development expenses increased moderately from \$17.1 million in 2002 to \$18.3 million in 2003, due to increased legal expenses for intellectual property protection and related costs. We implemented a reduction-in-force during the first quarter of 2003 to conserve cash that reduced the number of research and development employees by six people and incurred related severance costs of approximately \$50,000.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses increased from \$4.2 million in 2002 to \$4.4 million in 2003. Legal costs associated with securing intellectual property and other related costs represented most of the increase, but the total of other selling, general and administrative expenses remained flat, because our reduction-in-force in the first quarter of 2003 reduced expenses for the balance of the year, although revenue grew significantly during the year. The reduction-in-force implemented during the first quarter of 2003 reduced the number of sales and marketing employees by three people and resulted in severance costs of approximately \$37,000.

*Interest Income and Interest Expenses.* Interest income decreased from \$759,000 in 2002 to \$466,000 in 2003. Interest income declined in 2003 due to lower levels of cash and investments in high grade debt instruments, as well as lower market yields.

Interest expense decreased from \$481,000 in 2002 to \$166,000 in 2003. This decrease was primarily due to paying down a stockholder note.

## **Liquidity and Capital Resources**

At December 31, 2004, our principal sources of liquidity were our cash and cash equivalents which totaled \$41.4 million.

On July 14, 2004, we completed an initial public offering of our common stock at a price of \$12.00 per share. We sold 3,736,876 shares and additional 2,038,124 shares were sold by selling stockholders. We received \$39.3 million in proceeds after deducting underwriters' fees and other transaction costs.

In July 2004, we repaid in full \$10.5 million outstanding under a working capital line of credit. Subsequent to our initial public offering on July 14, 2004, the working capital line was amended twice and our line of credit was increased to \$14.5 million available for general working capital purposes. As of December 31, 2004, we had no balance outstanding under the Working Capital Line. Borrowings under the working capital line will bear

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interest at a rate of the Silicon Valley Bank prime rate plus one quarter of one percent (5.5% at December 31, 2004), or 4.25%, whichever is higher, except in the event of our default in which case the interest rate would be increased by 5% over the rate in effect immediately before the event of default. The working capital line is secured by all of our assets, including receivables and intangible assets, but excluding our intellectual property. To maintain the working capital line, we are required to maintain a tangible net worth of at least \$40 million and a minimum Adjusted Quick Ratio of 2.0 (both as defined in the working capital line agreement) at all times. We had complied with this covenant as of December 31, 2004.

In March 2004, we issued \$7.6 million in convertible promissory notes bearing interest at 10.0% per annum and warrants to purchase 76,500 shares of common stock at \$2.00 per share. The notes were issued to existing stockholders, directors and management. In July 2004, the notes and accrued interest were repaid in full following the closing of the initial public offering of our common stock.

The table below (in thousands) sets forth the key components of cash flow for the years ended December 31, 2004, 2003 and 2002:

	Year ended December 31, 2004	Year ended December 31, 2003	Year ended December 31, 2002
Net cash used in operating activities	\$ (9,658)	\$ (25,795)	\$ (17,827)
Net cash provided by (used in) investing activities	\$ 6,814	\$ (7,523)	\$ (1,976)
Net cash provided by financing activities	\$ 31,100	\$ 8,592	\$ 31,515

***Year ended December 31, 2004***

During the year ended December 31, 2004, our operating activities used net cash of \$9.7 million. Cash used in operating activities consisted of a net loss of \$12.0 million adjusted for non-cash items primarily related to depreciation, amortization of stock-based compensation and interest expense, which included the amortization and write-off of discount related to the issuance of promissory notes. The primary use of cash for operating activities during the year ended December 31, 2004 was for our inventory, which increased as we ramped up our production volume in order to meet our customers' increasing demand for our knowledge-based processors. In addition, the significant growth in our product sales in 2004 increased accounts receivable and lowered our operating cash flows. Cash was also used to reduce our accrued liabilities as we settled our product warranty obligations during the period and used a portion of our initial public offering proceeds to reduce our overall liability balance. Other uses of cash for operating activities included an increase in prepaid and other assets due to the payment of a directors and officers insurance premium in connection with our initial public offering, and a decrease in deferred revenue as we completed our obligation under the agreement with Micron. Cash used for activities related to inventory, accounts receivable, accrued liabilities, prepaid and other assets and deferred revenue was offset by an increase in accounts payable due to the growth in our operations.

Our investing activities provided net cash of \$6.8 million during the year ended December 31, 2004. Cash was provided by the sale of short-term investments and the reduction in restricted cash as our amended line of credit agreement with a bank no longer required a restricted cash deposit. Cash provided by the sale of short-term investments and the reduction in restricted cash was offset by the acquisition of property and equipment totaling \$1.2 million. The property and equipment expenditures were primarily for purchases of computer equipment and research and development design tools to support our growing operations. We expect to make capital expenditures of approximately \$2.9 million during fiscal 2005. These capital expenditures will be used primarily to support product development activities. We will use our cash and cash equivalents to fund these purchases.



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Our financing activities provided net cash of \$31.1 million for the year ended December 31, 2004. The primary source of cash was the net proceeds received in connection with our initial public offering of \$39.3 million. The other sources of cash included the issuance of convertible promissory notes, repayment of stockholder notes received, proceeds from exercises of stock options and warrants and borrowings under the line

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of credit. Cash provided by these activities was offset by repayment of convertible promissory notes, repayment of the outstanding balance under the working capital line and the payments for capital lease obligations.

### ***Comparison of Year Ended December 31, 2003 to Year Ended December 31, 2002***

Cash used in operating activities during the year ended December 31, 2003 was \$25.8 million compared to \$17.8 million in 2002. Our reported net loss of \$32.0 million and \$19.9 million in 2003 and 2002, respectively, was offset by non-cash charges of approximately \$15.6 million primarily due to stock-based compensation in 2003 and \$1.8 million primarily due to depreciation and amortization in 2002. Cash used in operations during 2003 included an increase in accounts receivable of \$3.7 million resulting from product sales late in 2003. We reduced our cash utilization during the year in part through an increase in accrued liabilities of \$7.1 million, which primarily related to unfavorable purchase commitments and warranty charges for the cost of replacement parts. We also increased inventories during this period by \$12.7 million as we began ramping production of our knowledge-based processors for Cisco, but this increase in gross inventories was significantly offset by a \$10.4 million provision for inventory and adverse purchase commitments.

Cash used in investing activities was \$7.5 million for the year ended December 31, 2003 compared to \$2.0 million during the same period in 2002. During 2003, we used \$5.0 million in cash related to bank financings as the cash was reclassified as restricted cash, \$1.3 million in purchases of property and equipment and a net increase of \$1.2 million in short-term investments. During 2002, we used cash in investing activities primarily for the purchase of property and equipment.

Cash provided by financing activities was \$8.6 million in 2003 compared to \$31.5 million in 2002. During 2003, we received proceeds of approximately \$9.9 million from bank financings. We repaid bank debt totaling \$1.4 million. During 2002, we raised \$30.0 million from a convertible promissory note which we subsequently converted into shares of redeemable preferred stock by exercising our right to effect this conversion. We made net debt repayments of approximately \$0.6 million in 2002.

## **Capital Resources**

We believe that our existing cash and cash equivalents balance of \$41.4 million, together with the working capital line of \$14.5 million, will be sufficient to meet our anticipated cash needs for the foreseeable future. Our future capital requirements will depend on many factors, including the amount of revenue we generate, the timing and extent of spending to support product development efforts, the expansion of sales and marketing activities, the timing of introductions of new products, the costs to ensure access to adequate manufacturing capacity, and the continuing market acceptance of our products. However, if we do not meet our plan, we could be required, or might elect, to seek additional funding through public or private equity or debt financing and additional funds may not be available on terms acceptable to us or at all.

## **Contractual Obligations**

As of December 31, 2004, our principal commitments consisted of operating and capital lease payments, which are summarized below (in thousands):

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	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>4-5 years</u>	<u>After 5 years</u>
Operating lease obligations	\$ 4,105	\$ 494	\$ 1,261	\$ 1,320	\$ 1,030
Capital lease obligations	1,317	1,314	3		
Wafer purchases	6,175	6,175			
<b>Total</b>	<b>\$ 11,597</b>	<b>\$ 7,983</b>	<b>\$ 1,264</b>	<b>\$ 1,320</b>	<b>\$ 1,030</b>

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In addition to the enforceable and legally binding obligations quantified in the table above, we have other obligations for goods and services entered into in the normal course of business. These obligations, however, either are not enforceable or legally binding or are subject to change based on our business decisions.

## **Off-Balance Sheet Arrangements**

As part of our ongoing business, we do not participate in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, or SPEs, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of December 31, 2004, we were not involved in any unconsolidated SPE transactions.

## **Indemnities, Commitments and Guarantees**

In the normal course of business, we have made certain indemnities, commitments and guarantees under which we may be required to make payments in relation to certain transactions. These indemnities include intellectual property indemnities to our customers in connection with the sales of our products, indemnities for liabilities associated with the infringement of other parties' technology based upon our products, indemnities to various lessors in connection with facility leases for certain claims arising from such facility or lease, and indemnities to our directors and officers to the maximum extent permitted under the laws of the state of Delaware. The duration of each of these indemnities, commitments and guarantees varies and, in certain cases, is indefinite. We have not recorded any liability for these indemnities, commitments and guarantees in the accompanying balance sheets. We do, however, accrue for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable.

## **Recent Accounting Pronouncements**

In December 2004, the FASB issued SFAS No. 123 (revised 2004), Share-Based Payment. SFAS No. 123(R) would require us to measure all employee stock-based compensation awards using a fair value method and record such expense in its financial statements. In addition, the adoption of SFAS No. 123(R) will require additional accounting related to the income tax effects and additional disclosure regarding the cash flow effects resulting from share-based payment arrangements. SFAS No. 123(R) will be effective for us beginning in the third quarter of fiscal 2005. The adoption of SFAS No. 123(R) will have a material impact on our results of operations, financial position and statement of cash flows. We are evaluating what transition method and what pricing model to select upon adoption.

In December 2004, the FASB issued SFAS No. 153, Exchanges of Nonmonetary Assets, an amendment of APB Opinion No. 29. SFAS No. 153 addresses the measurement of exchanges of nonmonetary assets and redefines the scope of transactions that should be measured based on the fair value of the assets exchanged. SFAS No. 153 will be effective for us for nonmonetary asset exchanges beginning in the first quarter of fiscal 2006. The adoption of SFAS No. 153 is not expected to have a material effect on our financial position or results of operations.

In November 2004, the FASB issued SFAS No. 151, Inventory Costs, an amendment of ARB No. 43, Chapter 4. SFAS No. 151 clarifies that abnormal inventory costs such as costs of idle facilities, excess freight and handling costs, and wasted materials (spoilage) are required to be recognized as current period charges. The provisions of SFAS No. 151 will be effective for us beginning in the first quarter of fiscal 2006. The adoption of SFAS No. 151 is not expected to have a material impact on our financial position, results of operations and cash flows.



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**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.**

The primary objective of our investment activities is to preserve principal while maximizing the income we receive from our investments without significantly increasing the risk of loss. Some of the investable securities permitted under our cash management policy may be subject to market risk for changes in interest rates. To mitigate this risk, we plan to maintain a portfolio of cash equivalent and short-term investments in a variety of securities which may include investment grade commercial paper, money market funds, government debt issued by the United States of America, state debt, certificates of deposit and investment grade corporate debt. Presently, we are exposed to minimal market risks associated with interest rate changes. We manage the sensitivity of our results of operations to these risks by maintaining investment grade short-term investments. Our cash management policy does not allow us to purchase or hold derivative or commodity instruments or other financial instruments for trading purposes. Additionally, our policy stipulates that we periodically monitor our investments for adverse material holdings related to the underlying financial solvency of the issuer. As of December 31, 2004, our investments consisted mostly of investment grade commercial paper and U.S. government debt. Our results of operations and financial condition would not be significantly impacted by either a 10% increase or decrease in interest rates due mainly to the short-term nature of our investment portfolio. Our exposure to interest rates also relates to an increase or decrease in the amount of interest expense we may incur depending upon our outstanding bank debt. As of December 31, 2004, we had no outstanding bank debt. Our bank facility allows us to borrow up to \$14.5 million at a variable interest rate based upon the prime rate. The risks associated with fluctuating interest expense are limited to this facility, and we do not believe that a 10.0% change in the prime rate would have a material impact upon our results of operations.

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**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.**

**NETLOGIC MICROSYSTEMS, INC.**

**Index to Financial Statements and Financial Statement Schedule**

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<u>Statements of Operations for the years ended December 31, 2004, 2003 and 2002</u>	52
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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of

NetLogic Microsystems, Inc.:

In our opinion, the financial statements listed in the accompanying index present fairly, in all material respects, the financial position of NetLogic Microsystems, Inc. at December 31, 2004 and 2003, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2004 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related financial statements. These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California

February 23, 2005



**Table of Contents****NETLOGIC MICROSYSTEMS, INC.****BALANCE SHEETS****(IN THOUSANDS)**

	<b>December 31, 2004</b>	<b>December 31, 2003</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 41,411	\$ 13,155
Restricted cash		5,000
Short-term investments		2,995
Accounts receivable, net	5,873	4,062
Inventory	7,759	3,584
Prepaid expenses and other current assets	1,408	560
	<u>56,451</u>	<u>29,356</u>
Total current assets	56,451	29,356
Property and equipment, net	2,953	2,031
Other assets	50	457
	<u>59,454</u>	<u>31,844</u>
Total assets	\$ 59,454	\$ 31,844
<b>LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)</b>		
Current liabilities:		
Revolving line of credit	\$	\$ 9,910
Accounts payable	5,690	3,581
Accrued liabilities	4,164	8,118
Deferred revenue		500
Capital lease obligations, current	1,314	351
	<u>11,168</u>	<u>22,460</u>
Total current liabilities	11,168	22,460
Capital lease obligations, long-term	3	135
Other liabilities	181	
	<u>11,352</u>	<u>22,595</u>
Total liabilities	11,352	22,595
Commitments and contingencies (Note 10)		
Redeemable convertible preferred stock: \$0.01 par value; 50,000 shares authorized; none issued and outstanding at December 31, 2004 and 38,561 shares issued and outstanding at December 31, 2003		91,600
Stockholders' equity (deficit):		
Common stock; 200,000 shares authorized at December 31, 2004 and 100,000 shares authorized at December 31, 2003; 17,581 and 3,638 shares issued and outstanding at December 31, 2004 and 2003	176	36
Additional paid-in capital	150,771	10,686
Notes receivable from stockholders	(434)	(1,620)
Deferred stock-based compensation	(3,227)	(4,300)
Accumulated deficit	(99,184)	(87,153)
	<u>48,102</u>	<u>(82,351)</u>
Total stockholders' equity (deficit)	48,102	(82,351)

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Total liabilities, redeemable convertible preferred stock and stockholders equity (deficit)	\$ 59,454	\$ 31,844
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The accompanying notes are an integral part of these financial statements.

**Table of Contents****NETLOGIC MICROSYSTEMS, INC.****STATEMENTS OF OPERATIONS****(IN THOUSANDS, EXCEPT FOR PER SHARE AMOUNTS)**

	<b>Year Ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
Revenue:			
Product revenue	\$ 46,705	\$ 10,015	\$ 2,592
License and engineering service revenue	1,128	3,520	303
<b>Total revenue</b>	<b>47,833</b>	<b>13,535</b>	<b>2,895</b>
Cost of revenue:			
Cost of product revenue (1)	26,664	20,310	1,634
Cost of license and engineering revenue		5	89
<b>Total cost of revenue</b>	<b>26,664</b>	<b>20,315</b>	<b>1,723</b>
<b>Gross profit (loss)</b>	<b>21,169</b>	<b>(6,780)</b>	<b>1,172</b>
Operating expenses:			
Research and development	17,259	18,312	17,133
Selling, general and Administrative	6,587	4,405	4,184
Stock-based compensation (2)	&n		