

MoSys, Inc.
Form 424B5
February 26, 2015

Use these links to rapidly review the document

[TABLE OF CONTENTS](#)
[TABLE OF CONTENTS](#)

[Table of Contents](#)

Filed Pursuant to Rule 424(b)(5)
Registration Statement No. 333-197991

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell nor are we seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 26, 2015

**Preliminary Prospectus Supplement
(To Prospectus dated September 9, 2014)**

Shares

MOSYS, INC.

Common Stock

We are offering shares of our common stock, par value \$0.01 per share, pursuant to this prospectus supplement and the accompanying prospectus. Our common stock is listed on the Global Market of the NASDAQ Stock Market under the symbol "MOSY." The last reported sale price of our common stock on February 25, 2015 was \$1.92 per share. Our chief executive officer and chief operating officer have indicated that they intend to purchase approximately \$ _____ of the shares we sell in this offering at the public offering price.

Investing in our common stock involves risk. See "Risk Factors" beginning on page S-9 of this prospectus supplement.

	Per Share	Total
Public offering price		
Underwriting discount		
Proceeds, before expenses, to us		

We granted the underwriters the option to purchase within 30 days from the date of this prospectus supplement up to an additional _____ shares of our common stock at the per share purchase price set forth above to cover over-allotments, if any. If the underwriters

Edgar Filing: MoSys, Inc. - Form 424B5

exercise this option in full, the total underwriting discount will be \$, and our total proceeds, before expenses, will be \$. See "Underwriting" for additional information regarding underwriting compensation.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Sole Book-Running Manager

Roth Capital Partners

Co-Manager

The Benchmark Company

The date of this prospectus is , 2015

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

<u>About This Prospectus Supplement</u>	<u>S-ii</u>
<u>Prospectus Supplement Summary</u>	<u>S-1</u>
<u>The Offering</u>	<u>S-6</u>
<u>Summary and Selected Financial Data</u>	<u>S-7</u>
<u>Special Note Regarding Forward-Looking Statements</u>	<u>S-8</u>
<u>Risk Factors</u>	<u>S-9</u>
<u>Use of Proceeds</u>	<u>S-22</u>
<u>Capitalization</u>	<u>S-23</u>
<u>Dilution</u>	<u>S-24</u>
<u>Management Discussion and Analysis</u>	<u>S-25</u>
<u>Business</u>	<u>S-35</u>
<u>Description of Capital Stock</u>	<u>S-45</u>
<u>Underwriting</u>	<u>S-48</u>
<u>Legal Matters</u>	<u>S-53</u>
<u>Experts</u>	<u>S-53</u>
<u>Where You Can Find More Information</u>	<u>S-53</u>
<u>Incorporation By Reference</u>	<u>S-53</u>

Prospectus

<u>About This Prospectus</u>	<u>3</u>
<u>Special Note Regarding Forward-Looking Statements</u>	<u>3</u>
<u>Our Company</u>	<u>3</u>
<u>Risk Factors</u>	<u>5</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>5</u>
<u>Use of Proceeds</u>	<u>5</u>
<u>General Description of Securities That We May Sell</u>	<u>6</u>
<u>Description of Debt Securities</u>	<u>6</u>
<u>Description of Capital Stock</u>	<u>17</u>
<u>Description of Warrants</u>	<u>21</u>
<u>Plan of Distribution</u>	<u>23</u>
<u>Experts</u>	<u>24</u>
<u>Legal Matters</u>	<u>25</u>
<u>Where You Can Find More Information</u>	<u>25</u>
<u>Incorporation By Reference</u>	<u>25</u>

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information. To the extent there is a conflict between the information contained in this prospectus supplement, on one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement.

It is important for you to read and consider all information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference in the prospectus in making your investment decision. You should also read and consider the information in the documents to which we have referred in "Where You Can Find More Information" and "Incorporation by Reference," below.

You should not assume that the information contained in this prospectus supplement or the accompanying prospectus is accurate as of any date other than their respective dates, or that the information contained in any document incorporated by reference in this prospectus is accurate as of any date other than the date on which that document was filed with the Securities and Exchange Commission, or SEC.

We and the underwriters are not making an offer to sell the common stock in jurisdictions where the offer or sale is not permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offer and sale of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about and observe any restrictions relating to the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute an offer of, or an invitation to purchase, any shares of common stock in any jurisdiction in which such offer or invitation would be unlawful.

You should rely only on the information contained in the prospectus supplement, the accompanying prospectus and the documents we incorporate by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is different. We are offering our common stock only in jurisdictions where such offers are permitted. The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement, or of any sale of our common stock.

In this prospectus supplement, "MoSys," "we," "us," and "our" refer to MoSys, Inc. and our subsidiaries on a consolidated basis.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information related to our business. Since it is a summary, this section may not contain all the information that you should consider before investing in our common stock. You should carefully read the entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference in each one, including the "Risk Factors" section.

Our Business

Overview

MoSys, Inc., together with its subsidiaries ("MoSys," the "Company," "we," "our" or "us"), is a fabless semiconductor company focused on the development and sale of integrated circuits, or ICs, for the high-speed networking, communications, storage and computing markets. Our solutions deliver time-to-market, performance, power, area and economic benefits for system original equipment manufacturers, or OEMs. As the bandwidth requirements and amount of packet processing increase in high-speed networking systems, critical memory access bottlenecks can occur. Our ICs are designed for next-generation ethernet and optical transport network applications. We are currently supporting existing design win customers and actively pursuing additional design wins for the use of our ICs in networking and communication equipment.

Historically, our primary business was the design, development, marketing, sale and support of differentiated intellectual property, or IP, including embedded memory and high-speed parallel and serial I/O used in advanced systems-on-chips, or SoCs. Currently, we are focused on developing differentiated IP-rich IC products and are dedicating all our research and development, marketing and sales budget to these IC products. While royalty and other revenue generated from our existing IP agreements represented 58% of our total revenue in 2014, we expect royalty and other revenue to decline in 2015.

We have developed two IC product lines under the Bandwidth Engine and LineSpeed product names. Bandwidth Engine ICs combine our proprietary 1T-SRAM high-density embedded memory, integrated macro functions and high-speed serial interface, or I/O, with our intelligent access technology and a highly efficient interface protocol. The LineSpeed IC product line, which was announced in March 2013, is comprised of non-memory, high-speed SerDes I/O devices with gearbox and retimer functionality, which convert lanes of data received on line cards or by optical modules into different configurations and/or ensure signal integrity

Our future success and ability to achieve and maintain profitability will be dependent on the marketing and sales of our IC products into networking, communications and other markets. Since the beginning of 2010, we have invested an increasing amount of our research and development resources towards development of our ICs, and as of the end of 2012 had ceased our efforts to actively market our IP and establish license agreements for customers' new SoC development projects. However, we have made opportunistic sales of some of our IP. For instance, in December 2011, we sold a number of patents in an arrangement that provided \$35 million in cash with no equity dilution to the Company and, in March 2012, we sold a portion of our SerDes technology and supporting workforce for approximately \$4.3 million.

Industry Background

The amount of data being transferred by networking, storage and computing systems is increasing rapidly, primarily driven by the growth of the Internet and demand for real-time processing of bandwidth intensive applications, such as video-on-demand, Internet protocol TV, peer-to-peer and cloud computing, web2.0 applications, 4G/LTE wireless, voice-over- Internet protocol, and many others.

Table of Contents

In order to meet these demands, the network backbone, access, storage and data center infrastructure must scale in bandwidth and processing capability. In addition, system designers face the challenge of increasing the throughput of all subsystems for a variety of applications, such as video games, medical record and imaging transfers, and file sharing. These increased demands strain communication between onboard IC devices, limiting the data throughput in network switches and routers and the network backbone. To meet this demand, carrier and enterprise networks are undergoing significant changes and, most significantly, are migrating to packet-based Ethernet networks that enable higher throughput, lower cost and uniform technology across access, core and metro network infrastructure. To support these trends, the next generations of networking systems must offer higher levels of packet forwarding rates, increased bandwidth density and be optimized to enable higher-density, lower power data path connectivity. This in turn necessitates new generations of packet processors and improved memory subsystems to enable system performance in support of these increased demands.

Today, the majority of physical buses that connect network equipment and components use a parallel architecture to communicate between processors and memory ICs, which means information can travel only in one direction and in one instance at a time. As processing speeds increase, in a parallel architecture the number of pins required and the speed of the bus become a limitation on system performance and capability. In a serial architecture, the number of connections is reduced substantially across fewer, higher-rate pins and data is transferred simultaneously in both directions. High speed serial bus architectures and more advanced I/O protocols must be supported by the various ICs included on the line card in order to remove the bottleneck and meet next generation bandwidth requirements.

We believe an IC combining our 1T-SRAM memory and serial I/O with logic and other intelligence functions provides a system-level solution and significantly improves overall system performance at lower cost, size and power consumption. We have developed our Bandwidth Engine and LineSpeed family of ICs to synergistically address the need for high-speed data access and throughput currently confronting networking system designers. We expect our IC products to meet the increasing demands placed on conventional memory technology used on the line cards in high-bandwidth networking systems. We believe that our products and technology are well positioned as replacements for existing IC solutions in order to meet the needs of the next-generation networking systems that will require a large number of packet lookups and to support aggregated rates greater than 100 Gbps. As of December 31, 2014, we had achieved approximately 40 such design wins, which we define as the point at which a customer has made a commitment to build a board against the fixed schematic for his system, and this board will utilize our ICs. However, there is no assurance that these customer designs will be shipped in volume production to their end customers.

Our Strategy

Our primary business objective is to be an IP-rich fabless semiconductor company offering ICs that deliver unparalleled bandwidth performance for next generation networking systems. The key components of the expansion of our strategic plan to become an IC supplier include the following strategies:

Target Large and Growing Markets

Our initial strategy is to target the multi-billion dollar networking and telecommunications equipment market, and to date, we have secured multiple design wins with networking and telecommunications OEMs. We believe that networking and telecommunications systems OEMs typically prefer to extend the use of traditional memory solutions, despite performance and costs challenges and are reluctant to change their technology platforms and adopt new designs and technologies, such as serial interfaces, which are an integral part of our product solutions. Therefore, our principal selling and marketing activities to date have been focused on persuading these OEMs and

Table of Contents

their key component suppliers that our solutions provide critical performance advantages, as well as on securing design wins with them.

Leverage Technologies to Create New Products

Our strategy is to combine our proprietary IP and design and applications expertise to address the needs of several upcoming generations of advanced networking systems. We believe an IC combining our 1T-SRAM and serial I/O with logic, such as in an ALU, and other functions can provide a system-level solution and significantly improve overall system performance at lower cost while using less power. Another strategy is to leverage our high-speed serial I/O to create non-memory denominated ICs.

Expand Adoption of the GigaChip Interface Protocol

Our goal is for our GCI interface protocol to become an open industry standard that is designed into other ICs in the system, as we believe this will further enable serial communication on network line cards and encourage adoption of our Bandwidth Engine IC products. A number of IC providers have publicly announced their intention to support GCI, including the largest FPGA providers, Altera Corporation and Xilinx, Inc., with whom we work closely to support common customers. In addition, multiple networking systems companies, including actual and prospective customers, have adopted GCI.

Build Long-Term Relationships with Suppliers of Packet Processors

We believe that having long-term relationships with packet processor providers is critical to our success, as such relationships may enable us to reduce our time-to-market, provide us with a competitive advantage and expand our target markets. A key consideration of network system designers is to demonstrate interoperability between our Bandwidth Engine IC and the packet processors utilized in their systems. We have been working closely with FPGA, ASIC and NPU providers, to enable interoperability between our Bandwidth Engine IC products and their high-performance products.

Our Products

Bandwidth Engine

The Bandwidth Engine is a memory-dominated IC that has been designed to be a high-performance companion IC to packet processors. While the Bandwidth Engine primarily functions as a memory device with a high-performance and high-efficiency interface, it also can accelerate certain processing operations by serving as a co-processor element. Our Bandwidth Engine ICs combine: (1) our proprietary high-density, high-speed, low latency embedded memory, (2) our high-speed serial interface technology, or SerDes, (3) an open-standard interface protocol and (4) intelligent access technology. Our Bandwidth Engine ICs can provide up to and over 4.5 billion memory accesses per second, which is more than twice the performance of current memory-based solutions. They also can enable system designers to significantly narrow the gap between processor and memory IC performance.

Our first generation Bandwidth Engine IC products contain 576 megabytes, or MB, of memory and uses a serial I/O operating at up to 10.3 Gbps SerDes. Our second generation Bandwidth Engine IC products contain 576 MG of memory and uses serial I/O operating at up to 15 Gbps. In addition to a speed improvement of up to 50%, the architecture will enable several family member parts with added specialized features. We announced the architecture of our third generation Bandwidth Engine IC, which offers 800 Gbps I/O performance, up to 10 billion data accesses per second and 1 Gb of high access rate embedded 1T-SRAM memory. We expect to introduce this third generation product in the second half of 2015.

Table of Contents

LineSpeed

Our first generation LineSpeed products consist of single-chip PHY ICs, including a 100G multi-mode gearbox and a 100G quad retimer. These devices are designed to support 10G, 40G and 100G standards for high-density line cards or modules for next generation ethernet and optical transport network applications. Built using standard CMOS technology, these devices are capable of supporting both short and long reach connections across different specifications.

In 2014, we introduced our LineSpeed 100G low power retimer, which is optimized for ultra low power consumption of 700 milliwatts.

IP Licensing and Distribution

Historically, we have offered our memory and I/O technologies on a worldwide basis to semiconductor companies, electronic product manufacturers, foundries, intellectual property companies and design companies through product development, technology licensing and joint marketing relationships. We licensed our IP technology to semiconductor companies who incorporated our technology into ICs that they sold to their customers. As a result of the change in our corporate strategy, since early 2012, our IP licensing activities have been limited, and we expect this to continue. However, during 2014, 58% of our total revenues were generated from licensing and royalties related to our existing licensing arrangements, as we continue to perform and deliver under outstanding license agreements and collect royalties from 1T- SRAM licensees. To date, we have completed our performance obligations under our existing licensing agreements, and we expect licensing and royalty revenues to decline in 2015.

Competition

The markets for our products are highly competitive. We believe that the principal competitive factors are processing speed and performance, density and cost, power consumption, reliability, interface requirements, ease with which technology can be customized for and incorporated into customers' products and level of technical support provided.

We believe that we can compete favorably with respect to each of these criteria. Our proprietary 1T-SRAM embedded memory and high-speed serial I/O IP provides our Bandwidth Engine ICs with a competitive advantage over alternative devices. Alternative solutions are either DRAM or SRAM-based and can support either the memory size or speed requirements of high-performance networking systems, but generally not both. DRAM solutions provide a significant amount of memory at competitive cost, but DRAM solutions do not have the required fast access and cycle times to enable high-performance. The majority of the currently available SRAM and DRAM solutions use a parallel, rather than a serial I/O. To offset these drawbacks, system designers generally use more discrete memory ICs, resulting in higher power consumption and greater utilization of space on the line card. Our competitors include established semiconductor companies with significantly longer operating histories, greater name recognition and reputation, large customer bases, dedicated manufacturing facilities and greater financial, technical, sales and marketing resources. This may allow them to respond more quickly than us to new or emerging technologies or changes in customer requirements. Many of our competitors also have significant influence in the semiconductor industry. They may be able to introduce new technologies or devote greater resources to the development, marketing and sales of their products than we can. Furthermore, in the event of a manufacturing capacity shortage, these competitors may be able to manufacture products when we are unable to do so.

Our LineSpeed ICs compete with solutions offered by Applied Micro Circuits Corporation, Avago Technologies, Broadcom Corporation, Inphi Corporation, Semtech Corp., as well as other smaller

Table of Contents

analog signal processing companies. We may also compete with ASICs designed by customers in-house to meet their system requirements, as well as by optical module OEMs.

Available Information

We were founded in 1991 and reincorporated in Delaware in September 2000. Our website address is www.mosys.com. The information in our website is not incorporated by reference into this prospectus supplement. Through a link on the Investor section of our website, we make available our annual reports 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, or SEC. You can also read and obtain copies of any materials we file with the SEC, at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549. You can obtain additional information about the operation of the Public Reference Room by calling the SEC at 1.800.SEC.0330. In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us. The information contained on the SEC's website is expressly not incorporated by reference into this prospectus supplement, other than documents that we file with the SEC that are incorporated by reference in this prospectus supplement.

Table of Contents

THE OFFERING

Common stock offered by MoSys, Inc.	shares	Our chief executive officer and chief operating officer have indicated that they intend to purchase approximately \$ of the shares we sell in this offering at the public offering price.
Common stock to be outstanding after this offering	shares	
Use of proceeds		We estimate that the net proceeds from the sale of the shares of our common stock in this offering will be approximately \$ million (or approximately \$ million if the over-allotment option to purchase additional shares of common stock we have granted to the underwriters is exercised in full), after deducting underwriting discounts, commissions and expense reimbursement and our estimated expenses related to this offering. We intend to use all the net proceeds we receive from our sale of shares in this offering for general corporate purposes. See "Use of Proceeds" below.
NASDAQ Global Market symbol	MOSY	
Risk Factors		See "Risk Factors" beginning on page S-9 for a discussion of the factors you should consider before deciding to invest in shares of our common stock.
Transfer agent and registrar	Wells Fargo Bank, N.A.	

The number of shares of our common stock to be outstanding after this offering is based upon 49,793,187 shares outstanding as of February 1, 2015. This number does not include:

- 5,817,000 shares of common stock issuable upon exercise of outstanding exercisable stock options with a weighted average exercise price of approximately \$3.83 per share;
- 2,389,000 shares of common stock issuable upon exercise of outstanding stock options that are not exercisable;
- 389,000 shares of common stock issuable upon vesting of restricted stock units;
- 2,283,000 shares of common stock available for future issuance under our stock option plans; and
- 766,000 shares of common stock available for sale under our employee stock purchase plan.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of the over-allotment option.

Table of Contents**SUMMARY AND SELECTED FINANCIAL DATA**

The selected financial data for the years ended December 31, 2012 and 2013 presented below is derived from our audited consolidated financial statements that are incorporated by reference herein. The selected financial data for the year ended December 31, 2014 are derived from our unaudited financial results. They are subject to adjustment as a result of the completion of our audit of that period. The selected financial data should be read in conjunction with our consolidated financial statements and notes related to those statements and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein.

	Years ended December 31,		
	2014(1)	2013(2)	2012(3)
	(unaudited)		
(In thousands, except per share data)			
Statement of Operations Data:			
Total net revenue	\$ 5,380	\$ 4,398	\$ 6,082
Cost of net revenue	2,318	474	334
Gross profit	3,062	3,924	5,748
Operating expenses	35,780	28,856	33,407
Loss from operations	(32,718)	(24,932)	(27,659)
Other income, net	143	209	155
Loss before income taxes	(32,575)	(24,723)	(27,504)
Income tax provision	107	71	110
Net loss	\$ (32,682)	\$ (24,794)	\$ (27,614)
Net loss per share:			
Basic and diluted	\$ (0.66)	\$ (0.55)	\$ (0.70)
Shares used in computing net loss per share:			
Basic and diluted	49,528	45,246	39,176
Allocation of stock-based compensation to cost of net revenue and operating expenses:			
Cost of net revenue	\$ 7	\$ 7	\$ 53
Research and development	3,419	2,565	2,694
Selling, general and administrative	1,172	1,126	1,064
	\$ 4,591	\$ 3,698	\$ 3,811

As of December 31,
2014 2013 2012
(unaudited)
(in thousands)

Balance Sheet Data:

Edgar Filing: MoSys, Inc. - Form 424B5

Cash, cash equivalents and investments	\$	25,794	\$	50,482	\$	40,710
Working capital		22,649		36,020		30,155
Total assets		52,626		77,989		69,534
Current liabilities		2,845		2,355		4,821
Long-term liabilities		241		216		171
Stockholders' equity		49,540		75,418		64,542

- (1) Operating expenses include \$1.0 million of amortization of acquired intangible assets.
- (2) Operating expenses include a gain on the sale of patents of \$0.6 million and \$1.0 million of amortization of acquired intangible assets.
- (3) Operating expenses include a gain on the sale of patents of \$3.3 million and \$1.7 million of amortization of acquired intangible assets.

S-7

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements in this prospectus supplement or the accompanying prospectus constitute forward-looking statements. These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. These factors include, among others, the completion of our audit of our financial results for the year ended December 31, 2014 and those factors incorporated by reference under "Risk Factors" below.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," or "continue" or similar terms.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Our actual results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors under the heading "Risk Factors" below and a variety of other factors, including, without limitation, statements about our future business operations and results, the market for our technology, our strategy and competition.

Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements. We undertake no obligation to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. In light of these risks, uncertainties and assumptions, the forward-looking events discussed or incorporated by reference in this prospectus supplement or the accompanying prospectus may not occur.

Table of Contents

RISK FACTORS

An investment in our common stock is risky. Prior to making a decision about investing in our common stock, you should carefully consider the risks discussed below, together with all of the other information contained in this prospectus supplement and the accompanying prospectus, or otherwise incorporated by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of the risks or uncertainties described below or in our filings with the SEC or any such additional risks and uncertainties actually occur, our business, results of operations, cash flows and financial condition could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you might lose all or part of your investment.

RISKS RELATING TO OUR BUSINESS

We have a history of losses and are uncertain as to our future profitability.

We recorded an operating loss of \$32.7 million for the year ended December 31, 2014 and ended the period with an accumulated deficit of \$150.5 million. We recorded an operating loss of \$25.6 million, excluding the one-time gain on sale of assets of \$0.6 million, for the year ended December 31, 2013. We recorded an operating loss of \$31.0 million, excluding the one-time gain on sale of assets of \$3.3 million, for the year ended December 31, 2012. We expect to continue to incur operating losses for the foreseeable future as we secure customers for and invest in the commercialization of our IC products. Due to the strong commitment of our resources to research and development and expansion of our offerings to customers, we will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit. Given our history of fluctuating revenues and operating losses, the expected reduction in royalty and licensing revenues and challenges we face in securing customers for our IC products, we cannot be certain that we will be able to achieve profitability on either a quarterly or annual basis in the future.

Our success depends upon the networking and communications systems markets' acceptance of our ICs.

The future prospects of our business depend on the adoption and acceptance by our target markets, networking and communications equipment, of our Bandwidth Engine and LineSpeed ICs. In 2011, we began focusing our engineering, marketing and sales efforts on our IC products and de-emphasizing our technology licensing activities, which historically have been our primary revenue source. Our prospective customers may be unwilling to adopt and design-in our ICs due to the uncertainties and risks surrounding designing a new IC into their systems and relying on a supplier that has almost no history of manufacturing such ICs. In addition, our Bandwidth Engine IC products require our customers and their other IC suppliers to implement our new and proprietary chip-to-chip communication protocol, GCI, which they may be unwilling to do. We have determined and negotiated prices with a few customers for our ICs and have gained only limited experience with the cost of making and selling these products. Thus, currently we do not know whether we will be able to profitably make and sell these products. We are investing significant resources to develop our next generation IC products, but may not introduce these new products successfully or obtain significant revenue from them.

An important part of our strategy to gain market acceptance is to penetrate new markets by targeting market leaders to accept our IC solutions. This strategy is designed to encourage other participants in those markets to follow these leaders in adopting our solutions. If a high-profile industry participant adopts our ICs for one or more of its products but fails to achieve success with those products, or is unable to successfully implement our ICs, other industry participants' perception of our solutions could be harmed. Any such event could reduce the amount of future sales of our IC products.

Table of Contents

Our future revenue depends on us winning designs with our customers, and those customers designing our solutions into their product offerings and successfully selling and marketing such products. If we do not continue to win designs in the short term, our revenue in the following years will deteriorate.

We sell our ICs to original equipment manufacturer (OEM) customers that include our ICs in their products. Our technology is generally incorporated into products at the design stage, which we refer to as a design win, and which we define as the point at which a customer has made a commitment to build a board against the fixed schematic for his system, and this board will utilize our ICs. As a result, our future revenue depend on our OEM customers designing our ICs into their products, and on those products being produced in volume and successfully commercialized. If we fail to convince our current or prospective customers to include our ICs in their products and fail to achieve a consistent number of design wins, our results of operations and business will be harmed. In addition, if a current or prospective customer designs a competitor's offering into its product, it becomes significantly more difficult for us to sell our IC solutions to that customer because changing suppliers involves significant cost, time, effort and risk for the OEM. Even if a customer designs one of our ICs into its product, we cannot be assured that the OEM's product will be commercially successful over time or at all or that we will receive or continue to receive any revenue from that customer. Furthermore, the customer product for which we obtain a design win may be canceled before the product enters production or is introduced into the market. Because of our extended sales cycle, our revenue in future years are highly dependent on design wins we are awarded today.

The design win process is generally a lengthy, expensive and competitive process, with no guarantee of revenue, and if we fail to generate sufficient revenue to offset our expenses, our business and operating results would suffer.

Achieving a design win is typically a lengthy, expensive and competitive process because our customers generally take a considerable amount of time to evaluate our ICs. In the markets we serve, the time from initial customer engagement to design win to production volume shipments can range from two to three years, though it may take longer for new customers or markets we intend to address. In order to win designs, we are required to both incur design and development costs and dedicate substantial engineering resources in pursuit of a single customer opportunity. Even though we incur these costs, we may not prevail in the competitive selection process and, even if we do achieve a design win, we may never generate sufficient, or any, revenue to offset our development expenditures. As a result, we will see a decline in our revenue from the designs that are replaced.

Our customers have the option to decide whether or not to put our solutions into production after initially designed to include our product in the specification. The customer can make changes after a design win is awarded to us, which have the effect of canceling a previous design win. The delays inherent in our protracted sales cycle increase the risk that a customer will decide to cancel, curtail, reduce or delay its product plans, causing us to lose anticipated revenue. In addition, any change, delay or cancellation of a customer's plans could harm our financial results, as we may have incurred significant expense while generating no revenue.

If our foundries do not achieve satisfactory yields or quality, our reputation and customer relationships could be harmed.

We depend not only on sufficient foundry manufacturing capacity and wafer prices, but also on good production yields (the number of good die per wafer) and timely wafer delivery to meet customer demand and maintain profit margins. The fabrication of our products is a complex and technically demanding process. Minor deviations in the manufacturing process can cause substantial decreases in yields, and in some cases, cause production to be suspended. Our foundry, Taiwan Semiconductor Manufacturing Company (TSMC), from time to time, experiences manufacturing defects and reduced manufacturing yields. Changes in manufacturing processes or the inadvertent use of defective or

Table of Contents

contaminated materials by our foundries could result in lower than anticipated manufacturing yields, which would harm our revenue or increase in our costs. For example, recently our foundry produced ICs and met its process specification range but did not meet our customer's specifications causing us to write off a portion of our production lot. Many of these problems are difficult to detect at an early stage of the manufacturing process and may be time consuming and expensive to correct. Poor yields from our foundries, or defects, integration issues or other performance problems in our ICs, could cause us significant customer relations and business reputation problems, harm our financial results and give rise to financial or other damages to our customers. Our customers might consequently seek damages from us for their losses. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly to defend.

We may experience difficulties in transitioning to new wafer fabrication process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries and increased costs.

We aim to use the most advanced manufacturing process technology appropriate for our solutions that is available from TSMC. As a result, we periodically evaluate the benefits of migrating our solutions to other technologies in order to improve performance and reduce costs. These ongoing efforts require us from time to time to modify the manufacturing processes for our products and to redesign some products, which in turn may result in delays in product deliveries. We are dependent on TSMC to support the production of wafers for future versions of our ICs as TSMC is our sole foundry. Such production may require changes to TSMC's existing process technology. If TSMC elects to not alter their process technology to support future versions of our ICs, we would need to identify a new foundry.

In addition, to date, TSMC has not provided us with a product roadmap for the 1T-SRAM technology at process nodes below 40 nanometer. If TSMC does not support our 1T-SRAM at process nodes below 40 nanometer, we would need to eventually identify a new foundry and/or no longer use our 1T-SRAM technology. We may face difficulties, delays and increased expense as we transition our products to new processes, and potentially to new foundries.

Because the manufacturing of integrated circuits is extremely complex, the process of qualifying a new foundry is a lengthy process and there can be no assurance that we will be able to find and qualify replacement suppliers without materially adversely affecting our business, financial condition, results of operations and prospects for future growth. We cannot assure you that we will be able to maintain our relationship with our foundries or develop relationships with new foundries. If we or TSMC experience significant delays in transitioning to smaller geometries or fail to efficiently implement transitions, we could experience reduced manufacturing yields, delays in product deliveries and increased costs, any of which could harm our relationships with our customers and our operating results.

We may not achieve the anticipated benefits of becoming a fabless semiconductor company by developing and bringing to market the Bandwidth Engine and LineSpeed IC product lines.

In 2010, we expanded our business model to become a fabless semiconductor company through the development of a product line of memory ICs called the Bandwidth Engine. In March 2013, we announced a product line of SerDes ICs called LineSpeed. Our goal is to increase our total available market by creating high-performance ICs for networking and communications systems, using our proprietary technology and design expertise. This development effort has required that we add headcount and design resources, such as expensive software tools, which has increased our losses from and cash used in operations. We may not be successful in our development efforts to bring our ICs to

Table of Contents

market successfully nor be successful in selling ICs due to various risks and uncertainties, including, but not limited to:

customer acceptance;

adoption of the GCI protocol;

difficulties and delays in our development, production, testing and marketing activities;

timeliness of new product introductions;

the anticipated costs and technological risks of developing and bringing ICs to market;

the willingness of our manufacturing partners to assist successfully with fabrication;

the availability of quantities of ICs supplied by our manufacturing partners at a competitive cost;

our ability to generate the desired gross margin percentages and return on our product development investment;

competition from established IC suppliers;

the adequacy of our intellectual property protection for our proprietary IC designs and technologies;

the vigor and growth of markets served by our current and prospective customers; and

our lack of recent experience as a fabless semiconductor company making and selling proprietary ICs.

If we experience significant delays in bringing Bandwidth Engine 3 or our other IC products to market or if customer adoption of our products is delayed, could have a material adverse effect on our anticipated revenues in upcoming years due to the potential loss of design wins and future revenues.

Our main objective is the development and sale of our products to networking and communications systems providers and their subsystem and component vendors, and, if demand for these products does not grow, we may not achieve revenue growth and our strategic objectives.

We market and sell our ICs to networking and telecommunications equipment providers and their subsystem and component vendors. We believe our future business and financial success depends on market acceptance and increasing sales of these products. In order to meet our growth and strategic objectives, networking infrastructure OEMs must incorporate our products into their systems, and the demand for their systems must grow as well. We cannot provide assurance that sales of products will increase substantially in the future or that the demand for our customers' systems will increase. Our future revenues from these products may not increase in accordance with our growth and strategic objectives if instead our OEM customers modify their product designs, select products sold by our competitors or develop their own proprietary ICs. Thus, the future success of this part of our business depends in large part on factors outside our control, and sales of our products may not meet our revenue growth and strategic objectives.

Our failure to continue to develop new products and enhance our products on a timely basis could diminish our ability to attract and retain customers.

Edgar Filing: MoSys, Inc. - Form 424B5

The existing and potential markets for our products are characterized by ever-increasing performance requirements, evolving industry standards, rapid technological change and product obsolescence. These characteristics lead to frequent new product introductions and enhancements,

S-12

Table of Contents

shorter product life cycles and changes in industry demands. In order to attain and maintain a significant position in the market, we will need to continue to enhance and evolve our products and the underlying proprietary technologies in anticipation of these market trends.

Our future performance depends on a number of factors, including our ability to:

identify target markets and relevant emerging technological trends;

develop and maintain competitive technology by improving performance and adding innovative features that differentiate our products from alternative technologies;

enable the incorporation of our products into the customers' products on a timely basis and at competitive prices;

develop our products to be manufactured at smaller process geometries; and

respond effectively to new technological developments or new product introductions by others.

For example, we expect to introduce our Bandwidth Engine 3 IC in the second half of 2015. Delays in introducing this product could have a material adverse effect on our anticipated revenues in upcoming years due to the potential loss of design wins and future revenues. We plan to continually introduce enhancements to our products to meet market requirements. However, we cannot be assured that these introductions will achieve market acceptance or that we will be able to sell the products on terms that are favorable to us. Our failure to develop future products that achieve market acceptance could harm our competitive position and impede our future growth.

Our ICs have a lengthy sales cycle, which makes it difficult to predict success in this market and the timing of future revenue.

Our ICs have a lengthy sales cycle, ranging from six to 24 months from the date of our initial proposal to a prospective customer until the date on which the customer confirms that it has designed our product into its system. As lengthy, or an even lengthier period, could ensue before we would know the volume of products that such customer will, or is likely to, order. A number of factors can contribute to the length of the sales cycle, including technical evaluations of our products by the customers, the design process required to integrate our products into the customers' products and the timing of the customers' 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 this lengthy sales cycle, the recording of revenues 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. We cannot provide any assurances that our efforts to build a strong and profitable business based on the sale of ICs will succeed. If these efforts are not successful, in light of the substantial resources that we have invested, our future operating results and cash flows could be materially and adversely affected.

We expect our licensing and royalty revenues to decrease compared with our historical results, and there is no guarantee revenues from our IC products will replace these lost revenues in the near future.

In 2011, we began to place greater emphasis on our IC business and re-deploy engineering, marketing and sales resources from IP to IC activities. We are no longer actively pursuing new license arrangements, and, as a result, our license and royalty revenues in 2014 declined when compared with prior years. We do not expect to generate sufficient revenues from our IC business to allow us to achieve profitability in 2015.

Table of Contents

The semiconductor industry is cyclical in nature and subject to periodic downturns, which can negatively affect our revenue.

The semiconductor industry is cyclical and has experienced pronounced downturns for sustained periods of up to several years. To respond to any downturn, many semiconductor manufacturers and their customers will 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. As a result, our business has been in the past and could be adversely affected in the future by an industry downturn, which could negatively impact our future revenue and profitability. Also, the cyclical nature of the semiconductor industry may cause our operating results to fluctuate significantly from year-to-year, which may tend to increase the volatility of the price of our common stock.

Royalties generated from the licensing of our memory technologies are currently a key component of revenues, and, if we fail to realize expected royalties, our operating results will suffer.

Royalties generated from the licensing of our memory technologies are currently a key component of revenues. Royalty payments owed to us are calculated based on factors such as our licensees' selling prices, wafer production and other variables as provided in each license agreement. The amount of royalties we will receive depends on our licensees' business success, production volumes and other factors beyond our control. This exposes our business model to risks that we cannot minimize directly and may result in significant fluctuations in our royalty revenue and operating results from quarter-to-quarter. We do not expect to enter into any new memory technology licensing activities, therefore the number of royalty-bearing agreements will not increase and contribute to our royalty stream. In addition, the production volumes of the current royalty-bearing products shipped by our licensees are expected to decrease; therefore we expect our royalty revenue to decrease in future periods. Historically, royalties have generated a 100% gross margin, and any decrease in royalties adversely affects our gross margin, operating results and cash flows.

Our revenue has been highly concentrated among a small number of licensees and customers, and our results of operations could be harmed if we lose a key revenue source and fail to replace it.

Our overall revenue has been highly concentrated, with a few customers accounting for a significant percentage of our total revenue. For the year ended December 31, 2014, our three largest customers represented 34%, 31% and 11% of total revenue, respectively. For the year ended December 31, 2013, our two largest customers represented 41%, and 13% of total revenue, respectively. For the year ended December 31, 2012, our three largest customers represented 28%, 26% and 12% of total revenue, respectively. We expect that a relatively small number of customers will continue to account for a substantial portion of our revenue for the foreseeable future.

As a result of this revenue concentration, our results of operations could be adversely affected by the decision of a single key licensee or customer to cease using our technology or products or by a decline in the number of products that incorporate our technology that are sold by a single licensee or customer or by a small group of licensees or customers.

Our revenue concentration may also pose credit risks, which could negatively affect our cash flow and financial condition.

We might also face credit risks associated with the concentration of our revenue among a small number of licensees and customers. As of December 31, 2014, three customers represented 97% of total trade receivables. Our failure to collect receivables from any customer that represents a large percentage of receivables on a timely basis, or at all, could adversely affect our cash flow or results of operations and might cause our stock price to fall.

Table of Contents

Our products must meet exact specifications, and defects and failures may occur, which may cause customers to return or stop buying our products.

Our customers generally establish demanding specifications for quality, performance and reliability that our products must meet. However, our products are highly complex and may contain defects and failures when they are first introduced or as new versions are released. If defects and failures occur in our products during the design phase or after, we could experience lost revenues, increased costs, including warranty and customer support expenses and penalties for non-performance stipulated in customer purchase agreements, delays in or cancellations or rescheduling of orders or shipments, product returns or discounts, diversion of management resources or damage to our reputation and brand equity, and in some cases consequential damages, any of which would harm our operating results. In addition, delays in our ability to fill product orders as a result of quality control issues may negatively impact our relationship with our customers. We cannot assure you that we will have sufficient resources to satisfy any asserted claims. Furthermore, any such defects, failures or delays may be particularly damaging to us as we attempt to establish our reputation as a reliable provider of IC products.

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 expect to sell our IC products pursuant to individual purchase orders, rather than long-term purchase commitments. Therefore, we will rely on estimated demand forecasts, based upon input from our customers, to determine how much product to manufacture. Because our sales will be based primarily on purchase orders, our customers may cancel, delay or otherwise modify their purchase commitments with little or no notice to us. For these reasons, we will generally have limited visibility regarding our customers' product needs. 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 ICs.

Furthermore, if we experience substantial warranty claims, our customers may cancel existing orders or cease to place future orders. 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 mitigate the effect of the lost revenue on our business.

If we overestimate customer demand for our products, we may purchase products from manufacturers that we cannot sell. Conversely, if we underestimate customer demand or if sufficient manufacturing and testing capacity were unavailable, we would forego revenue opportunities and could lose market share in the markets served by our products. In addition, our inability to meet customer requirements for our products could lead to delays in product shipments, force customers to identify alternative sources and otherwise adversely affect our ongoing relationships with our customers.

We will depend on contract manufacturers for a significant portion of our revenue from the sale of our IC products.

Many of our prospective OEM customers use third party contract manufacturers to manufacture their systems, and these contract manufacturers would purchase our products directly from us on behalf of the OEMs. Although we expect to work with our OEM customers in the design and development phases of their systems, these OEMs often give contract manufacturers some authority in product purchasing decisions. If we cannot compete effectively for the business of these contract manufacturers, or, if any of the contract manufacturers that work with our OEM customers experience financial or other difficulties in their businesses, our revenue and our business could be adversely affected. For

Table of Contents

example, if a contract manufacturer becomes subject to bankruptcy proceedings, we may not be able to obtain our products held by the contract manufacturer or recover payments owed to us by the contract manufacturer for products already delivered to the contract manufacturer. If we are unable to persuade contract manufacturers to purchase our products, or if the contract manufacturers are unable to deliver systems with our products to OEMs on a timely basis, our business would be adversely affected.

We rely on independent foundries and contractors for the manufacture, assembly, testing and packaging of our integrated circuits, and the failure of any of these third parties to deliver products or otherwise perform as requested could damage our relationships with our customers and harm our sales and financial results.

As a fabless semiconductor company, we rely on third parties for substantially all of our manufacturing operations. We depend on these parties to supply us with material in a timely manner that meets our standards for yield, cost and quality. We do not have long-term supply contracts with any of our suppliers or manufacturing service providers, and therefore they are not obligated to manufacture products for us for any specific period, in any specific quantity or at any specified price, except as may be provided in a particular purchase order. Any problems with our manufacturing supply chain could adversely impact our ability to ship our products to our customers on time and in the quantity required, which in turn could damage our customer relationships and impede market acceptance of our IC solutions.

Our third party wafer foundries, testing and assembly vendors and sales offices are located in regions at high risk for earthquakes and other natural disasters. Any disruption to the operations of these foundries, vendors and offices resulting from earthquakes or other natural disasters could cause significant delays in the development, production, shipment and sales of our IC products.

TSMC, which manufactures our products, is located in Asia, as are other foundries we may use in the future. EAG, which handles the testing of our products, is headquartered in California. Our primary engineering design center is located in Santa Clara, California, and we have sales offices in Japan and China. 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 major foundries and other vendors. As a result of this earthquake, these vendors suffered power outages and disruptions that impaired their production capacity. In March 2002 and September 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 and may impede our research and development efforts, as well as our ability to market and sell our products. We may not be able to obtain alternate capacity on favorable terms, if at all.

Any claim that our products or technology infringe third party intellectual property rights could increase our costs of operation and distract management and could result in expensive settlement costs or the discontinuance of our technology licensing or product offerings. In addition, we may incur substantial litigation expense, which would adversely affect our profitability.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights or positions, which has resulted in often protracted and expensive litigation. We are not aware of any third party intellectual property that our products or technology would infringe. However, like many companies of our size with limited resources, we have not searched for all potentially applicable intellectual property in the public databases. It is possible that a third party now has, or may in the future obtain, patents or other intellectual property rights that our products or technology may now, or in the future, infringe. Our licensees and IC customers, or we, might, from time to time, receive notice of claims that we have infringed patents or other intellectual property rights of others. Litigation against us can result in significant expense and divert the efforts of our technical and

Table of Contents

management personnel, whether or not the litigation has merit or results in a determination adverse to us.

Royalty amounts owed to us might be difficult to verify, and we might find it difficult, expensive and time-consuming to enforce our license agreements.

The standard terms of our 1T-SRAM license agreements require our licensees to document the manufacture and sale of products that incorporate our technology and generally report this data to us after the end of each quarter. We have the right to audit these royalty reports periodically. These audits can be expensive, time-consuming and potentially detrimental to our business relationships. A failure to fully enforce the royalty provisions of our license agreements could cause our revenue to decrease and impede our ability to achieve and maintain profitability.

We might 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 technology is complex and is intended for use in complex SoCs and networking systems. Our licensees' products utilize our embedded memory and/or I/O technology, and a large number of companies manufacture and market these products. Because of these factors, policing the unauthorized use of our intellectual property is difficult and expensive. We cannot be certain that we will be able to detect unauthorized use of our technology or prevent other parties from designing and marketing unauthorized products based on our technology. In the event we identify any past or present infringement of our patents, copyrights or trademarks, or any violation of our trade secrets, confidentiality procedures or licensing agreements, we cannot assure you that the steps taken by us to protect our proprietary information will be adequate to prevent misappropriation of our technology. Our inability to adequately protect our intellectual property would reduce significantly the barriers of entry for directly competing technologies and could reduce the value of our technology. Furthermore, we might initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Litigation by us could result in significant expense and divert the efforts of our technical and management personnel, whether or not such litigation results in a determination favorable to us.

Our existing patents might not provide us with sufficient protection of our intellectual property, and our patent applications might not result in the issuance of patents, either of which could reduce the value of our core technology and harm our business.

We rely on a combination of patents, trademarks, copyrights, trade secret laws and confidentiality procedures to protect our intellectual property rights. As of December 31, 2014, we held approximately 68 patents in the United States, and approximately 22 foreign patents, which expire at various times from 2015 to 2031. In addition, as of December 31, 2014, we had approximately 40 pending patent applications worldwide. We cannot be sure that any patents will be issued from any of our pending applications or that any claims allowed from pending applications will be of sufficient scope or strength, or issued in all countries where our products can be sold, to provide meaningful protection or any commercial advantage to us. In December 2011, we sold 43 United States and 30 related foreign patents, which reduced the size of our patent portfolio and diminishes our ability to assert counterclaims in the defense of actions against us that may arise. Also, competitors might be able to design around our patents. Failure of our patents or patent applications to provide meaningful protection might allow others to utilize our technology without any compensation to us.

The discovery of defects in our technology and products could expose us to liability for damages.

The discovery of a defect in our technologies and products could lead our customers to seek damages from us. Many of our agreements with customers include provisions waiving implied warranties regarding our technology and products and limiting our liability to our customers. We

Table of Contents

cannot be certain, however, that the waivers or limitations of liability contained in our agreements with customers will be enforceable.

If we fail to retain key 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. The loss of any key personnel could negatively impact our technology development efforts, our ability to deliver under our existing agreements, maintain strategic relationships with our partners, and obtain new customers. We generally have not entered into employment or non-competition agreements with any of our employees and do not maintain key-man life insurance on the lives of any of our key personnel.

We have a history of losses, and future losses or the inability to raise additional capital in the future, may adversely impact our ability to continue as a going concern.

Without the net proceeds from this offering or significant reductions in our expenses, we may not be able to operate as a going concern with the ability to realize our assets and discharge our liabilities in the normal course of business beyond the next 12 months. Our consolidated financial statements have been prepared on a going concern basis, which assumes we will be able to realize our assets and discharge our liabilities in the normal course of business for the foreseeable future. Since our inception, we have incurred significant net losses leading to an accumulated deficit of \$150.5 million as of December 31, 2014. To achieve profitability, we will need to generate and sustain significantly higher revenue while maintaining expense levels that are appropriate and necessary for our business. We may not be able to achieve profitability and, even if we were able to attain profitability, we may not be able to sustain profitability on an on-going quarterly or an annual basis in the future. If we are unable to obtain adequate funding from this offering or from other sources in the future, or if we are unable to grow our revenue substantially to achieve and sustain profitability, we may be required to curtail some aspects of our business, or may not be able to continue as a going concern.

Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new products could reduce our ability to compete and could harm our business.

We intend to continue spending substantial amounts to grow our business. Although we believe that with the proceeds of this offering we will have capital sufficient to satisfy our working capital requirements for the foreseeable future, we still may need to obtain additional financing to pursue our business strategy, develop new products, respond to competition and market opportunities and acquire complementary businesses or technologies. We may not be able to obtain such financing on favorable terms or at all.

If we were to raise additional capital through sales of our equity securities, our stockholders would suffer dilution of their equity ownership. If we engage in a subsequent debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, prohibit us from paying dividends, repurchasing our stock or making investments, and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

develop or enhance our products;

continue to expand our product development and sales and marketing organizations;

acquire complementary technologies, products or businesses;

expand operations, in the United States or internationally;

Table of Contents

hire, train and retain employees; or

respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could seriously harm our ability to execute our business strategy and may force us to curtail our research and development plans or existing operations.

Our failure to successfully address the potential difficulties associated with our international operations could increase our costs of operation and negatively impact our revenue.

We are subject to many difficulties posed by doing business internationally, including:

foreign currency exchange fluctuations;

unanticipated changes in local regulation;

potentially adverse tax consequences, such as withholding taxes and transfer pricing issues;

political and economic instability; and

reduced or limited protection of our intellectual property.

Because we anticipate that integrated circuit sales to companies that operate primarily outside the United States may account for a substantial portion of our revenue in future periods, the occurrence of any of these circumstances could significantly increase our costs of operation, delay the timing of our revenue and harm our profitability.

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. Acquisitions that we may do in the future will present a number of potential challenges that could, if not overcome, disrupt our business operations, substantially increase our operating expenses, negatively affect our operating results and cash flows and reduce the value to us of the acquired company or assets purchased, including:

uncertainty related to future revenues;

increased operating expenses and cost structure;

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 business;

entering markets in which we lack prior experience;

retention of key employees of the acquired business;

difficulties and delays in the further development, production, testing and marketing of the acquired technologies;
and

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

S-19

Table of Contents

RISKS RELATING TO OUR COMMON STOCK AND THE OFFERING

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

If you purchase the common stock sold in this offering, you will experience immediate and substantial dilution in your investment. You will experience further dilution if we issue additional equity securities in future fundraising transactions.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution with respect to the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of \$ per share and our net tangible book value as of December 31, 2014, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$ per share with respect to the net tangible book value of the common stock. See the section entitled "Dilution" for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

In addition, we have a significant number of stock options outstanding. To the extent that outstanding stock options have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders or result in downward pressure on the price 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.

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 our company. 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 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 our company. 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.

Under our certificate of incorporation, our board of directors may issue up to 20,000,000 shares of preferred stock without stockholder approval on such terms as the board might determine. The rights

Table of Contents

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.

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% of our common stock or commences or announces its intent to commence a tender offer for at least 15% of our common stock, other than for one group of related stockholders, as to whom this threshold is 20%. The plan also includes an exception to permit the acquisition of shares representing more than 15% of our common stock by a brokerage firm that manages independent customer accounts and generally does not have any discretionary voting power with respect to such shares. 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. Our intention is to maintain and enforce the terms of this plan, which 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.

Potential volatility of the price of our common stock could negatively affect your investment.

We cannot assure you that there will continue to be an active trading market for our common stock. Historically, the stock market, as well as our common stock, has experienced significant price and volume fluctuations. Market prices of securities of technology companies have been highly volatile and frequently reach levels that bear no relationship to the operating performance of such companies. These market prices generally are not sustainable and are subject to wide variations. If our common stock trades to unsustainably high levels, it is likely that the market price of our common stock will thereafter experience a material decline. In the past, our board of directors approved stock repurchase programs, and any future program could impact the price of our common stock and increase volatility.

In the past, securities class action litigation has often been brought against a company following periods of volatility in the market price of its securities. We could be the target of similar litigation in the future. Securities litigation could cause us to incur substantial costs, divert management's attention and resources, harm our reputation in the industry and the securities markets and negatively impact our operating results.

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.

We do not anticipate declaring any cash dividends on our common stock. Investors in this offering may never obtain a return on their investment.

We have never declared or paid cash dividends on our common stock and do not plan to pay any cash dividends in the foreseeable future. Our current policy is to retain all funds and earnings to fund the development and growth of our business. Accordingly, investors will need to rely on sales of their common stock after price appreciation, which may never occur, in order to realize a return on their investment.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the shares of our common stock in this offering will be approximately \$ million (or approximately \$ million if the over-allotment option to purchase additional shares of common stock we have granted to the underwriters is exercised in full), after deducting estimated underwriting discounts, commissions and expense reimbursement and our estimated expenses related to this offering.

We intend to use our net proceeds from this offering for general corporate purposes, which may include, among other things, increasing our working capital, financing of ongoing operating expenses and overhead, repayment of debt and funding of capital expenditures. Pending the application of the net proceeds, we may invest the proceeds in marketable securities and short-term investments.

Table of Contents**CAPITALIZATION**

The following table sets forth our capitalization as of December 31, 2014 on an actual basis and on an as adjusted basis after giving effect to the sale by us of _____ shares of common stock offered hereby at an offering price of \$ _____ and after deducting underwriting discounts and commissions and estimated offering expenses payable by us (assuming no exercise of the overallotment option to purchase additional shares of common stock we have granted to the underwriters)

You should read the following table in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein.

	As of December 31, 2014
	As Adjusted
	for this
	Offering
	(in thousands)
	Actual
Cash and cash equivalents	\$ 3,110
Short-term investments	20,439
Long-term liabilities	241
Stockholder's equity	
Preferred stock, \$0.01 par value; 20,000 shares authorized; none issued and outstanding	
Common stock, \$0.01 par value; 120,000 shares authorized; 49,793 shares (actual) and _____ shares (as adjusted) issued and outstanding	498
Additional paid-in capital	199,541
Accumulated other comprehensive income (loss)	(10)
Accumulated deficit	(150,489)
Total stockholders' equity	49,540

The number of shares of our common stock to be outstanding after this offering is based upon 49,793,187 shares outstanding as of December 31, 2014. This number does not include:

5,712,000 shares of common stock issuable upon exercise of outstanding exercisable stock options with a weighted average exercise price of approximately \$3.83 per share;

2,515,000 shares of common stock issuable upon exercise of outstanding stock options that are not exercisable;

394,000 shares of common stock issuable upon vesting of restricted stock units;

1,760,000 shares of common stock available for future issuance under our stock option plans; and

766,000 shares of common stock available for sale under our employee stock purchase plan.

Table of Contents

DILUTION

Our unaudited net tangible book value as of December 31, 2014 was \$25.8 million, or \$0.52 per share. Net tangible book value per share represents the total amount of our tangible assets reduced by the total amount of our liabilities and divided by the number of shares outstanding on December 31, 2014 of 49,793,187.

Our unaudited net tangible book value at December 31, 2014, as adjusted after giving effect to the issuance and sale by us of _____ shares in this offering, would be \$ _____ million, or \$ _____ per share based on _____ shares outstanding upon completion of this offering.

Based on the public offering price of \$ _____ per share, this represents an immediate increase in pro forma net tangible book value at December 31, 2014 of \$ _____ per share to existing shareholders and an immediate dilution of \$ _____ per share to new investors purchasing our shares in this offering.

Dilution per share represents the difference between the price per share to be paid for the shares sold by us in this offering and the pro forma net tangible book value per share immediately after this offering. The following table illustrates this per share dilution for purchasers of common stock in this offering:

Public offering price per share	
Net tangible book value per share as of December 31, 2014	
Increase in net tangible book value per share attributable to new investors	
Net tangible book value per share after the offering	
Dilution per share to new investors in this offering	

The foregoing table excludes the following, each as of December 31, 2014:

5,712,000 shares of common stock issuable upon exercise of outstanding exercisable stock options with a weighted average exercise price of approximately \$3.83 per share;

2,515,000 shares of common stock issuable upon exercise of outstanding stock options that are not exercisable;

394,000 shares of common stock issuable vesting of restricted stock units;

1,760,000 shares of common stock available for future issuance under our stock option plans; and

766,000 shares of common stock available for sale under our employee stock purchase plan.

Table of Contents

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements. The financial information for the year ended December 31, 2014 is derived from our unaudited financial results, which are subject to adjustment as a result of the completion of our audit of such period.

Overview

Our strategy and primary business objective is to become a fabless semiconductor company focused on the development and sale of integrated circuits, or ICs, for the high-speed networking, communications, storage and computing markets. Our solutions deliver time-to-market, performance, power, area and economic benefits for system original equipment manufacturers, or OEMs. We have developed two families of ICs under the Bandwidth Engine® and LineSpeed product names. Bandwidth Engine ICs combine our proprietary 1T-SRAM® high-density embedded memory, integrated macro functions and high-speed serial interface, or SerDes, I/O, with our intelligent access technology and a highly efficient interface protocol. The LineSpeed IC product line, which was announced in March 2013, is comprised of non-memory, high-speed SerDes I/O physical layer devices with gearbox and retimer functionality, which convert lanes of data received on line cards into different configurations and/or ensure signal integrity. Certain SerDes products have been developed under a strategic development and marketing agreement with Credo Semiconductor Ltd., or Credo, to whom we have paid a total of \$4.5 million for the development of these new products. The initial gross profits earned by us from the sale of Credo developed products will be primarily applied to reimbursing us for these development payments. Once \$4.2 million of this amount has been reimbursed, all gross profits from the sale of the Credo-developed products worldwide will be shared equally by Credo and us.

Historically, our primary business was the design, development, marketing, sale and support of differentiated intellectual property, or IP, including embedded memory and high-speed parallel and SerDes I/O used in advanced systems-on-chips, or SoCs. Currently, we are focused on developing differentiated IP-rich IC products and are dedicating all our research and development, marketing and sales budget to these IC products.

Our future success and ability to achieve and maintain profitability will be dependent on the marketing and sales of our IC products into networking, communications and other markets requiring high-bandwidth memory access. We are currently supporting existing design-win customers and actively pursuing additional design wins for the use of our ICs in networking and communication equipment. To date, none of our design win customers have commenced full production of systems using our ICs. We have established initial pricing of our IC products ordered to date, but longer-term volume prices will be subject to negotiations with our customers and may vary substantially from these initial prices.

Critical Accounting Policies and Use of Estimates

Our consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America.

We have identified the accounting policies below as some of the more critical to our business and the understanding of our results of operations. These policies may involve estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. Although we believe our judgments and estimates are appropriate, actual future results may differ from our estimates, and if different assumptions or conditions were to prevail, the results could be materially different from our reported results.

Table of Contents

Revenue Recognition

General

We generate revenue from the sales of IC products and licensing of our IP. We recognize revenue when persuasive evidence of an arrangement exists, delivery or performance has occurred, the sales price is fixed or determinable, and collectibility is reasonably assured. Evidence of an arrangement generally consists of signed agreements or customer purchase orders.

IC products

Products are sold both directly to customers, as well as through distributors. Revenue from sales directly to customers is generally recognized at the time of shipment. We may record an estimated allowance, at the time of shipment, for future returns and other charges against revenue consistent with the terms of sale. IC product revenue and costs relating to sales made through distributors with rights of return or stock rotation are generally deferred until the distributors sell the product to end customers due to our inability to estimate future returns and credits to be issued. Distributors are generally able to return up to 10% of their purchases of slow, non-moving or obsolete inventory for credit every six months. At the time of shipment to distributors, an accounts receivable for the selling price is recorded, as there is a legally enforceable right to receive payment, and inventory is relieved, as legal title to the inventory is transferred upon shipment. Revenues are recognized upon receiving notification from the distributors that products have been sold to end customers. Distributors provide information regarding products and quantity, end customer shipments and remaining inventory on hand. The associated deferred margin is included in the accrued expenses and other line item in the consolidated balance sheets.

Royalty

Royalty revenue represents amounts earned under provisions in our memory licensing agreements that require our licensees to report royalties and make payments at a stated rate based on actual units manufactured or sold by licensees for products that include our memory IP. Our license agreements require the licensee to report the manufacture or sale of products that include our technology after the end of the quarter in which the sale or manufacture occurs. We recognize royalties in the quarter in which we receive the licensee's report. The timing and level of royalties are difficult to predict, and depend on the licensee's ability to market, produce and sell products incorporating our technology.

Licensing

Licensing revenue consists of fees earned from license agreements, development services and support and maintenance. For stand-alone license agreements or license deliverables in multi-deliverable arrangements that do not require significant development, modification or customization, revenue is recognized when all revenue recognition criteria have been met. Delivery of the licensed technology is typically the final revenue recognition criterion met, at which time revenue is recognized. If any of the criteria are not met, revenue recognition is deferred until such time as all criteria have been met. Support and maintenance revenue is recognized ratably over the period during which the obligation exists, typically 12 months.

Fair Value Measurements of Financial Instruments

We measure the fair value of financial instruments using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels, as follows:

Level 1 Inputs used to measure fair value are unadjusted quoted prices that are available in active markets for the identical assets or liabilities as of the reporting date.

Table of Contents

Level 2 Pricing is provided by third party sources of market information obtained from investment advisors rather than models. We do not adjust for or apply any additional assumptions or estimates to the pricing information we receive from advisors. Our Level 2 securities include cash equivalents and available-for-sale securities, which consisted primarily of corporate debt, and government agency and municipal debt securities from issuers with high quality credit ratings. Our investment advisors obtain pricing data from independent sources, such as Standard & Poor's, Bloomberg and Interactive Data Corporation, and rely on comparable pricing of other securities because the Level 2 securities we hold are not actively traded and have fewer observable transactions. We consider this the most reliable information available for the valuation of the securities.

Level 3 Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment are used to measure fair value. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions. The determination of fair value for Level 3 investments and other financial instruments involves the most management judgment and subjectivity.

Valuation of long-lived Assets

We evaluate our long-lived assets for impairment at least annually, or more frequently when a triggering event is deemed to have occurred. This assessment is subjective in nature and requires significant management judgment to forecast future operating results, projected cash flows and current period market capitalization levels. If our estimates and assumptions change in the future, it could result in a material write-down of long-lived assets. We amortize our finite-lived intangible assets, such as developed technology and patent license, on a straight-line basis over their estimated useful lives of three to seven years. We recognize an impairment charge as the difference between the net book value of such assets and the fair value of the assets on the measurement date.

Goodwill

We review goodwill for impairment on an annual basis or whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. We first assess qualitative factors to determine whether it is more-likely-than-not that the fair value of the reporting unit is less than the carrying amount as a basis for determining whether it is necessary to perform the two-step impairment test. If the qualitative assessment warrants further analysis, we compare the fair value of the reporting unit to its carrying value. The fair value of the reporting unit is determined using the market approach. If the fair value of the reporting unit exceeds the carrying value of net assets of the reporting unit, goodwill is not impaired, and no further testing is performed. If the carrying value of the reporting unit's goodwill exceeds its implied fair value, then we must record an impairment charge equal to the difference. We have determined that we have a single reporting unit for purposes of performing the goodwill impairment test. We use the market approach to assess impairment in the second step of the analysis. We performed the annual impairment test in September 2014, and the test did not indicate impairment of goodwill. As of December 31, 2014, we did not identify any factors to indicate there was an impairment of our goodwill and determined that no additional impairment analysis was required.

Deferred tax valuation allowance

When we prepare our consolidated financial statements, we estimate our income tax liability for each of the various jurisdictions where we conduct business. This requires us to estimate our actual current tax exposure and to assess temporary differences that result from differing treatment of certain items for tax and accounting purposes. These differences result in deferred tax assets, which we show on our consolidated balance sheet under the category of other current assets. The net deferred tax

Table of Contents

assets are reduced by a valuation allowance if, based upon weighted available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. We must make significant judgments to determine our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance to be recorded against our net deferred tax asset.

Stock-based compensation

We recognize stock-based compensation for equity awards on a straight-line basis over the requisite service period, usually the vesting period, based on the grant-date fair value. We estimate the value of employee stock options on the date of grant using the Black-Scholes model. The determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The expected volatility is based on the historical volatility of our stock price.

Results of Operations*Net Revenue*

	Year ended December 31,			Year-Over-Year Change			
	2014	2013	2012	2013 to 2014	2012 to 2013		
	(dollar amounts in thousands)						
	(unaudited)			(unaudited)			
Product	\$ 2,280	\$ 394	\$ 90	\$ 1,886	479%	\$ 304	338%
Percentage of total net revenue	42%	9%	1%				

Product revenue increased in 2014 and 2013 due to increased volume of shipments for our ICs, mainly Bandwidth Engine, as we have more customers. In 2014, we realized \$0.3 million of revenue recognition from the reversal of sales return reserves recorded in prior periods following the completion of system-level tests in the field by customers, which reduced our expected risk of returns. We expect product revenue to increase in 2015 as we believe that some of our existing customers will commence full production of some systems that utilize our ICs for which we have design wins. Furthermore, we expand our customer base.

	Year ended December 31,			Year-Over-Year Change			
	2014	2013	2012	2013 to 2014	2012 to 2013		
	(dollar amounts in thousands)						
	(unaudited)			(unaudited)			
Royalty and other	\$ 3,100	\$ 4,004	\$ 5,992	\$ (904)	(23)%	\$ (1,988)	(33)%
Percentage of total net revenue	58%	91%	99%				

Royalty and other revenue is primarily comprised of revenue generated from licensing agreements. The sequential decreases were primarily due to a decrease in shipment volumes by licensees whose products incorporate our licensed IP and a decrease in revenue recognized from residual licensing agreements entered into in 2011 and prior years. We expect royalty and other revenue to decline in 2015, as we expect a decline in shipments of units incorporating our technology by licensees, as their products approach their end of life.

Table of Contents*Cost of Net Revenue and Gross Profit*

	Year ended December 31,			Year-Over-Year Change		
	2014	2013	2012	2013 to 2014	2012 to 2013	
	(unaudited)			(unaudited)		
	(dollar amounts in thousands)					
Cost of net revenue	\$ 2,318	\$ 474	\$ 334	\$ 1,844	389%	\$ 140 42%
Percentage of total net revenue	43%	11%	5%			

	Year ended December 31,			Year-Over-Year Change		
	2014	2013	2012	2013 to 2014	2012 to 2013	
	(unaudited)			(unaudited)		
	(dollar amounts in thousands)					
Gross profit	\$ 3,062	\$ 3,924	\$ 5,748	\$ (862)	(22)%	\$ (1,824) (32)%
Gross margin	57%	89%	95%			

In 2014 and 2013, cost of net revenue was primarily comprised of direct and indirect costs related to the sale of IC products. In 2012, cost of net revenues primarily consisted of personnel and related overhead allocation costs for engineers assigned to revenue-generating licensing arrangements.

Cost of net revenue increased in 2014 and 2013, primarily due to the increase in product material and testing costs related to our IC shipments. We expect that the cost of net revenue will increase in the future in absolute dollars, because we anticipate an increase in sales of our IC products.

Gross profit decreased in 2014 and 2013, primarily due to the decrease in our royalty revenue, which has no associated costs, coupled with the increase in IC shipments. The deferred margin recognized from the reversal of sales return reserves in 2014 was not material. Gross margin percentage decreased in 2014 and 2013, primarily due an increase in product revenue, which has associated costs, as compared to royalty revenue, which has no associated costs.

Research and Development

	Year ended December 31,			Year-Over-Year Change		
	2014	2013	2012	2013 to 2014	2012 to 2013	
	(unaudited)			(unaudited)		
	(dollar amounts in thousands)					
Research and development	\$ 29,261	\$ 23,325	\$ 28,480	\$ 5,936	25%	\$ (5,155) (18)%
Percentage of total net revenue	544%	530%	468%			

Our research and development expenses include costs related to the development of our IC products and amortization of intangible assets. We expense research and development costs as they are incurred.

The \$5.9 million increase was in 2014 primarily due to increases in personnel-related costs, resulting from higher headcount, mask tooling costs, computer-aided software license fees and stock-based compensation charges.

The \$5.2 million decrease in 2013 was primarily due to decreases in our mask tooling costs, personnel-related costs resulting from lower headcount, computer-aided software license fees and lower amortization costs related to acquired intangible assets.

Research and development expenses included stock-based compensation expense of \$3.4 million, \$2.6 million and \$2.7 million for the years ended December 31, 2014, 2013 and 2012, respectively. We

Table of Contents

expect that research and development expenses will increase in absolute dollars as our mask tooling costs and other fabrication costs are expected to be higher in 2015 compared with 2014, as we continue to develop next generation products.

Selling, General and Administrative

	Year ended December 31,			Year-Over-Year Change			
	2014	2013	2012	2013 to 2014	2012 to 2013		
	(dollar amounts in thousands)						
	(unaudited)			(unaudited)			
Selling, general and administrative	\$ 6,519	\$ 6,161	\$ 8,218	\$ 358	6%	\$ (2,057)	(25)%
Percentage of total net revenue	121%	140%	135%				

Selling, general and administrative expenses consist primarily of personnel and related overhead costs for sales, marketing, finance, human resources and general management.

Selling, general and administrative expenses increased \$0.4 million for 2014, compared with the prior year, as a result of increases in personnel-related and consulting costs.

The \$2.1 million decrease for 2013 was primarily due to a decrease in personnel-related and legal costs. Selling, general and administrative expenses included stock-based compensation expense of \$1.2 million, \$1.1 million and \$1.1 million for the years ended December 31, 2014, 2013 and 2012, respectively.

We expect total selling, general and administrative expenses to remain consistent in absolute dollars in 2015.

Gain on Sale of Assets

	Year ended December 31,			Year-Over-Year Change		
	2014	2013	2012	2013 to 2014	2012 to 2013	
	(dollar amounts in thousands)					
	(unaudited)			(unaudited)		
Gain on sale of assets	\$ 630	\$ 3,291	\$ (630)	(100)%	\$ (2,661)	(81)%
Percentage of total net revenue	14%	54%				

In March 2012, we entered into an asset purchase agreement for an exclusive license of a portion of our intellectual property pertaining to our high-speed serial I/O technology for approximately \$4.3 million. As part of the agreement, we provided certain technology transfer support services, and 15 employees of our India subsidiary accepted employment with the purchaser. In 2012, we received approximately \$3.4 million in cash, less transaction costs, from this agreement, and received the final payment of \$0.6 million in 2013.

Other Income, net

	Year ended December 31,			Year-Over-Year Change			
	2014	2013	2012	2013 to 2014	2012 to 2013		
	(dollar amounts in thousands)						
	(unaudited)			(unaudited)			
Other income, net	\$ 143	\$ 209	\$ 155	\$ (66)	(32)%	\$ 54	35%
Percentage of total net revenue	3%	5%	3%				

S-30

Table of Contents

Other income, net primarily consisted of interest income on our investments, which was \$0.2 million for each of the years ended December 31, 2014, 2013 and 2012, partially offset by other non-operating items.

Income Tax Provision

	Year ended December 31,			Year-Over-Year Change			
	2014	2013	2012	2013 to 2014	2012 to 2013		
	(dollar amounts in thousands)						
	(unaudited)			(unaudited)			
Income tax provision	\$ 107	\$ 71	\$ 110	\$ 36	51%	\$ (39)	(35)%
Percentage of total net revenue	2%	2%	2%				

Our income tax provisions were primarily attributable to taxes on earnings of our foreign subsidiaries and branches.

As of December 31, 2014, we had net operating loss carryforwards of approximately \$133 million for U.S. federal income tax purposes and approximately \$98 million for state income tax purposes that are available to reduce future income tax liabilities to the extent permitted under federal and state income tax laws. These net operating loss carryforwards expire from 2015 to 2034. In 2015, we anticipate that our effective income tax rate will continue to be less than the federal statutory tax rate because of expected losses.

As of December 31, 2014 and 2013, we had net deferred tax assets of approximately \$67 million and \$55 million, respectively. Because of uncertainties regarding the realization of these deferred tax assets, we had recorded a full valuation allowance as of December 31, 2014 and 2013.

Liquidity and Capital Resources

As of December 31, 2014, we had cash, cash equivalents and investments totaling \$25.8 million compared with a combined balance of \$50.5 million at December 31, 2013. Our primary capital requirements are to fund working capital, including development of our IC products, and any acquisitions that we make that require cash consideration or expenditures.

In 2014, we used \$26.3 million in operating activities, which primarily resulted from the net loss of \$32.7 million, adjusted for non-cash charges and gains, which included stock-based compensation expenses of \$4.6 million and depreciation and amortization expenses of \$1.4 million and changes to operating assets and liabilities of \$0.3 million. The changes in assets and liabilities primarily related to the payments to vendors, including purchases of inventory.

In 2013, we used \$22.6 million in operating activities, which primarily resulted from the net loss of \$24.8 million, and \$2.6 million used for operating assets and liabilities, adjusted for non-cash charges and gains, which included stock-based compensation expenses of \$3.7 million and depreciation and amortization expenses of \$1.7 million. The changes in assets and liabilities primarily related to the recognition of revenue related to deferred revenues and payments to vendors.

In 2012, we used \$22.0 million in operating activities, which primarily resulted from the net loss of \$27.6 million and the \$3.3 million gain on the sale of assets, adjusted for non-cash charges consisting of stock-based compensation of \$3.8 million, depreciation and amortization of \$2.7 million and \$2.4 million generated from changes in operating assets and liabilities. The changes in assets and liabilities primarily related to the timing of billing our customers, collection of receivables, recognition of revenue related to deferred revenues and payments to vendors.

Table of Contents

Our investing activities in 2014 primarily consisted of \$0.6 million expended for purchases of fixed assets. Remaining investing activities consisted of investing our cash in marketable securities, which did not affect our liquidity. Our investing activities in 2013 primarily consisted of \$0.6 million received for the sale of assets and \$0.2 million expended for purchases of fixed assets. Remaining investing activities consisted of investing our cash in marketable securities, which did not affect our liquidity. Our investing activities in 2012 primarily consisted of \$3.4 million received, net of transaction costs, for the sale of assets and \$0.7 million expended for purchases of fixed assets. Remaining investing activities consisted of investing our cash in marketable securities, which did not affect our liquidity.

Our financing activities in 2014 primarily consisted of proceeds from the exercise of stock options and sales under our employee stock purchase plan. Our financing activities in 2013 primarily consisted of \$27.7 million in net proceeds received from the sale of common stock through a public offering and \$4.2 million in proceeds from the exercise of stock options and purchases of common stock under our employee stock purchase plan. Our financing activities in 2012 primarily consisted of proceeds from the exercise of stock options and sales under our employee stock purchase plan, partially offset by a repurchase and retirement of common stock.

Our future liquidity and capital requirements are expected to vary from quarter to quarter, depending on numerous factors, including:

level of revenue;

cost, timing and success of technology development efforts;

inventory levels, timing of product shipments and length of billing and collection cycles;

fabrication costs, including mask costs, of our ICs, currently under development;

variations in manufacturing yields, materials costs and other manufacturing risks;

costs of acquiring other businesses and integrating the acquired operations; and

profitability of our business.

We expect our cash expenditures to continue to exceed receipts in 2015, as our revenues will not be sufficient to offset our operating expenses, which include significant research and development expenditures for the expansion and fabrication of our IC products. We believe our existing cash, cash equivalents and investments, together with the proceeds of this offering and cash generated from operations, if any, to be sufficient to meet our capital requirements for the foreseeable future. However, there can be no assurance that our capital is sufficient to fund operations until such time as we begin to achieve positive cash flows. We might decide to raise additional capital, and there can be no assurance that such funding will be available to us on favorable terms, if at all. The failure to raise capital when needed could have a material adverse effect on our business and financial condition.

If we were to raise additional capital through sales of our equity securities, our stockholders would suffer dilution of their equity ownership. If we engage in debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, prohibit us from paying dividends, repurchasing our stock or making investments, and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

develop or enhance our products;

continue to expand our product development and sales and marketing organizations;

Table of Contents

acquire complementary technologies, products or businesses;

expand operations, in the United States or internationally;

hire, train and retain employees; or

respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could seriously harm our ability to execute our business strategy and may force us to curtail our research and development plans or existing operations.

Disclosures about Contractual Obligations and Commercial Commitments

The impact that our contractual obligations as of December 31, 2014 are expected to have on our liquidity and cash flow in future periods is (in thousands):

	Payment Due by Period				
	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Operating leases	\$ 4,314	\$ 775	\$ 1,535	\$ 1,490	\$ 514
Software licenses	3,282	2,890	392		
Wafer purchase obligations	267	267			
Board components	296	296			
	\$ 8,159	\$ 4,228	\$ 1,927	\$ 1,490	\$ 514

As of December 31, 2014, our software licenses related to computer-aided design software.

Off-Balance Sheet Arrangements

We do not maintain any off-balance sheet arrangements or obligations that are reasonably likely to have a material current or future effect on our financial condition, results of operations, liquidity or capital resources.

Indemnifications

In the ordinary course of business, we enter into contractual arrangements under which we may agree to indemnify the counter-party from losses relating to a breach of representations and warranties, a failure to perform certain covenants, or claims and losses arising from certain external events as outlined within the particular contract, which may include, for example, losses arising from litigation or claims relating to past performance. Such indemnification clauses may not be subject to maximum loss clauses. We have also entered into indemnification agreements with our officers and directors. No material amounts are reflected in our consolidated financial statements for the years ended December 31, 2014, 2013 or 2012 related to these indemnifications.

Related Party Transactions

In February 2012, the Company entered into a strategic development and marketing agreement with Credo Semiconductor (Hong Kong) Ltd. (Credo), a privately-funded, fabless semiconductor company, to develop, market and sell integrated circuits. Two of the Company's executive officers between them loaned a total of \$250,000 to Credo for a portion of the seed funding needed by Credo to commence its integrated circuit design efforts. These loans may be converted into minority equity interests in Credo. The strategic development and marketing agreement, as amended, calls for the Company to make payments to Credo upon Credo achieving certain development and verification milestones towards the development of IC products and provides the Company with exclusive sales and marketing rights for such IC products.

To date, the Company has paid Credo \$4.5 million for

S-33

Table of Contents

achievement of additional development milestones, as well as for mask costs and wafer purchases from third-party vendors. All amounts incurred have been recorded as research and development expenses. Currently, under the strategic development and marketing agreement, the Company is entitled to reimbursement of \$4.2 million of development costs based on payments made to Credo to date. This amount is subject to increase as additional payments are made to Credo. The reimbursement will be funded by the gross profits earned by the Company and Credo from the sale of the products, with the initial gross profits being primarily applied to reimbursing the Company for these development payments. Once the full amount has been reimbursed, the gross profits will be shared equally by the Company and Credo.

S-34

Table of Contents

BUSINESS

Overview

We are a fabless semiconductor company focused on the development and sale of integrated circuits, or ICs, for the high-speed networking, communications, storage and computing markets. Our solutions deliver time-to-market, performance, power, area and economic benefits for system original equipment manufacturers, or OEMs. We have developed two IC product lines under the Bandwidth Engine and LineSpeed product names. Bandwidth Engine ICs combine our proprietary 1T-SRAM high-density embedded memory, integrated macro functions and high-speed serial interface, or I/O, with our intelligent access technology and a highly efficient interface protocol. As the bandwidth requirements and amount of packet processing increase in high-speed networking systems, critical memory access bottlenecks can occur. Our Bandwidth Engine IC, with its combination of serial I/O, high-speed memory, offload functions and efficient, intelligent access, drastically increases memory accesses per second, removing these bottlenecks. The LineSpeed IC product line, which was announced in March 2013, is comprised of non-memory, high-speed SerDes I/O devices with gearbox and retimer functionality, which convert lanes of data received on line cards or by optical modules into different configurations and/or ensure signal integrity. These ICs are designed for next-generation Ethernet and optical transport network applications. We are currently supporting existing design win customers and actively pursuing additional design wins for the use of our ICs in networking and communication equipment. We have established initial pricing of our IC products ordered to date, but longer-term volume prices will be subject to negotiations with our customers and may vary substantially from these initial prices.

Historically, our primary business was the design, development, marketing, sale and support of differentiated intellectual property, or IP, including embedded memory and high-speed parallel and serial I/O used in advanced systems-on-chips, or SoCs. Currently, we are focused on developing differentiated IP-rich IC products and are dedicating all our research and development, marketing and sales budget to these IC products. While royalty and other revenue generated from our existing IP agreements represented 58% of our total revenue in 2014, we expect royalty and other revenue to decline in 2015.

Our future success and ability to achieve and maintain profitability will be dependent on the marketing and sales of our IC products into networking, communications and other markets. Since the beginning of 2010, we have invested substantially all of our research and development resources towards development of our ICs, and as of the end of 2012 had ceased our efforts to actively market our IP and establish license agreements for customers' new SoC development projects.

Industry Background

The amount of data being transferred by networking, storage and computing systems is increasing rapidly, primarily driven by the growth of the Internet and demand for real-time processing of bandwidth intensive applications, such as video-on-demand, Internet protocol TV, peer-to-peer and cloud computing, web2.0 applications, 4G/LTE wireless, voice-over-Internet protocol, and many others. In order to meet these demands, the network backbone, access, storage and data center infrastructure must scale in bandwidth and processing capability. In addition, system designers face the challenge of increasing the throughput of all subsystems for a variety of applications, such as video games, medical record and imaging transfers, and file sharing. These increased demands strain communication between onboard IC devices, limiting the data throughput in network switches and routers and the network backbone.

To meet these demands, carrier and enterprise networks are undergoing significant changes and, most significantly, are migrating to packet-based Ethernet networks that enable higher throughput,

Table of Contents

lower cost and uniform technology across access, core and metro network infrastructure. These networks are now being designed to deliver voice, video and high-speed Internet access on one converged, efficient and flexible network. These trends require networking systems, especially the high-speed switches and routers that primarily comprise these networks, to comply with evolving market requirements and be capable of providing new services better quality of service while supporting new protocols and standards. To support these trends, OEM network and telecommunications equipment manufacturers, such as Alcatel-Lucent, Brocade Communications Systems, Inc., Cisco Systems, Inc., Tel. LM Ericsson, Fujitsu Ltd., Hitachi Ltd., Huawei Technologies, Juniper Networks, Inc., Nokia Siemens Networks, and ZTE Corporation, must offer higher levels of packet forwarding rates, bandwidth density and be optimized to enable higher-density, lower power data path connectivity in the next generations of their networking systems. This in turn requires new generations of packet processors and improved memory subsystems to enable system performance in support of these increased demands.

Networking and telecommunications systems must operate at higher speed and performance levels. These systems and their component line cards will generally need to support aggregate rates of 100 Gbps and above to meet the continued growth in network traffic. Several types of semiconductors are included on each line card, including physical interface electronics, one or more packet processors and multiple memory chips. Packet processors are complex ICs or IC chipsets developed using field programmable gate arrays, or FPGAs, application-specific integrated circuits, or ASICs, application specific standard products, or ASSPs, or network processing units, or NPUs, that perform high speed processing for functions, such as traffic routing, shaping, metering, billing, statistics, detection and steering. The line cards use various types of memory ICs to facilitate the temporary storage and assist in the analysis and tracking of information embedded within each packet flowing through the processors. After a packet enters the line card through a physical interface, a packet or data processor helps separate the packet into smaller pieces for rapid analysis. Typically, the data is broken up into the packet header, which contains vital information on packet destination and type, such as the Internet protocol address and payload, which contains the data being sent. Generally, the line card operations must occur at full data rates and typically requires accessing memory ICs many times. Simultaneously, the packet's payload, which may be substantially larger than the packet header, is also stored in memory ICs until processing is complete and the packet can re-combined and sent from the system. Within the line card, communication between the packet processor and memory ICs occurs through either a parallel or serial interface. Combinations of physical pins on each type of chip are grouped together in a parallel or serial architecture to form a pathway, called a bus, through which information is transferred from one IC to the next.

Today, the majority of physical buses that connect networking equipment and components use a parallel architecture to communicate between processors and memory ICs, which means information can travel only in one direction and in one instance at a time. As processing speeds increase, in a parallel architecture the number of pins required and the speed of the bus become a limitation on system performance and capability. In a serial architecture, the number of connections is reduced substantially across fewer, higher-rate pins and data is transferred simultaneously in both directions. High speed serial bus architectures and more advanced I/O protocols must be supported by the various ICs included on the line card in order to remove the bottleneck and meet next generation bandwidth requirements.

The majority of networking systems sold and in operation today includes line cards that process data at speeds of 10 gigabits per second, or Gbps, to 100 Gbps, supporting many aggregated slower ports. To accommodate the substantial and growing increase in demand for networking communications and applications, networking systems manufacturers are developing and bringing to market next-generation systems that run at aggregate speeds of 100 to 400 Gbps with plans to scale to thousands of Gbps, or Terabits, per second. However, although processor performance in applications

Table of Contents

such as computing and networking has continued to nearly double every 18 months, or even sooner, the performance of memory technology has generally been able to double once every 10 years. Existing memory IC solutions based on parallel I/O architecture easily support speeds up to 40 Gbps, but are not optimal for meeting speeds of 100 Gbps and beyond due to system-level limitations for pin counts, power and performance.

Traditional memory solutions currently used on line cards include both dynamic random access memory, or DRAM, and static random access memory, or SRAM, IC solutions. Line cards in networking systems use both specialized, high-performance DRAM ICs, such as reduced-latency DRAM, or RLDRAM, low-latency DRAM, or LLDRAM, and commodity DRAM, such as double data rate, or DDR ICs. In addition, networking systems use higher-performance SRAM ICs such as quad data rate, or QDR SRAM.

Substantially all of these DRAM and SRAM memory ICs use parallel interfaces, which are slower than serial interfaces and will be increasingly challenged to meet the performance, pin count, area and power requirements as networking systems expand beyond 100 Gbps. The result is a gap between processor and memory performance. To meet the higher performance requirements being demanded by the industry, while using current components and architectural approaches, system designers must add more discrete memory ICs to the line cards and/or add more embedded memory on the packet processor. This results in higher cost and power consumption, the use of more space on the line cards and additional communication interference between the ICs, which in turn results in additional bandwidth limitation problems.

We have developed our Bandwidth Engine and LineSpeed family of ICs to synergistically address the need for high-speed data access and throughput currently confronting networking system designers. We expect our IC products to meet the increasing demands placed on conventional memory technology used on the line cards in high-bandwidth networking systems. We believe that our products and technology are well positioned as replacements for existing IC solutions in order to meet the needs of the next-generation networking systems that will require a large number of packet lookups and to support aggregated rates greater than 100 Gbps.

Our Approach

Our historical business was focused on the licensing of our proprietary 1T-SRAM and SerDes I/O technologies. We have leveraged our proprietary IP to design our IC products to create new IC products to help networking OEMs address the approaching bottleneck in system performance.

On-chip Functionality

A significant performance bottleneck in any network line card is the need to transfer data between discrete ICs. Many of these data-transfer operations are iterative in nature, requiring subsequent, back-to-back accesses of the memory IC by the processor IC. Our Bandwidth Engine ICs have an arithmetic logic unit, or ALU, which enables the Bandwidth Engine IC to perform mathematical operations on data. By moving certain processing functions from the processor IC to the Bandwidth Engine IC through the use of this embedded ALU, the number of I/O transactions is reduced and the processor IC is freed up to perform other networking or micro-processing functions.

High-Performance Interface

High-speed, efficient I/Os are critical building blocks to meet high data transfer rate requirements for communication between ICs on network line cards. We believe that current networking system requirements necessitate an industry transition from parallel I/O to serial I/O. As a result, semiconductor companies are increasingly turning to serial I/O architectures to achieve needed system

Table of Contents

performance. For example, high-performance ICs that are sold into wide markets, such as FPGAs and NPUs, are using serial I/Os to ensure they can match the performance of, and compete with ASICs. While SerDes I/Os provide significantly enhanced performance over parallel I/Os, SerDes I/Os have higher power consumption, which is a challenge for IC designers. Our SerDes I/Os are tuned for low-power consumption to meet our customers' stringent power consumption requirements. Using serial I/O, IC developers also are able to reduce pin count (the wired electrical pins that connect an IC to the network line card on which it is mounted) on the IC. With reducing geometries, the size of most high-performance ICs is dictated by the number of pins required, rather than the amount of logic and memory embedded in the chip. As a result, using serial I/O facilitates cost reduction and reduced system power consumption, while improving the performance of both the IC itself and the overall system.

We make our I/O technologies compliant with industry standards so that they can interoperate with interfaces on existing ICs. In addition, we make them programmable to support multiple data rates, which allows for greater flexibility for the system designer, while lowering their development and validation costs. Interoperability reduces development time, thereby reducing the overall time to market of our customers' ICs.

Analog Design Capabilities

We have invested in personnel needed to define, design and market high-performance analog IC products. We have built a team of experienced engineers who combine industry expertise with advanced semiconductor design expertise to meet customer requirements and develop new products to bring to market. We intend to leverage these capabilities to achieve new levels of integration, power reduction and performance, enabling our customers to achieve differentiation in their end systems.

GigaChip Interface Protocol

In addition to the physical characteristics of the serial I/O, the protocol used to transmit data is also an important element that impacts speed and performance. To address this and complement our Bandwidth Engine devices, we have developed the GigaChip Interface, or GCI, which is an open-interface transport protocol optimized for efficient chip-to-chip communications. The GCI electrical interface is compatible with the current industry standard (Common Electrical Interface, release #11, or CEI-11G-SR and XFI). GCI can enable highly efficient serial chip-to-chip communications, and its transport efficiency averages 90% for the data transfers it handles. GCI is included in our Bandwidth Engine ICs, and we are offering it to customers and prospective partners on terms intended to encourage widespread adoption.

High-Performance and High-Density Memory Architecture

The high-density of our proprietary 1T-SRAM technologies stems from the use of a single-transistor, or 1T, which is similar to DRAM, with a storage cell for each bit of information. Embedded memory utilizing our 1T-SRAM technologies is typically two to three times denser than the six-transistor storage cells used by traditional SRAM, or 6T-SRAM. Embedded memory utilizing our 1T-SRAM technologies typically provides speeds essentially equal to or greater than the speeds of traditional SRAM and DRAM, particularly for larger memory sizes. Our 1T-SRAM memory designs can sustain random access cycle times of less than three nanoseconds, significantly faster than embedded 6T-SRAM technology. Embedded memory utilizing our 1T-SRAM technologies can consume as little as one-half the active power and generate less heat than traditional SRAM when operating at the same speed. This reduces system level heat dissipation and enables reliable operation using lower cost packaging.

Table of Contents

Carrier and Enterprise Grade Quality and Reliability

Networking systems providers focused on the carrier and enterprise market have rigid performance and reliability standards that they require their IC vendors to achieve. Our Bandwidth Engine architecture and interface are designed for data robustness and employ end-to-end error checking and correction codes. Although the Bandwidth Engine functions as more than a discrete memory device, the onboard memory array represents a significant portion of the total chip area. Memory-dominated devices require substantially different and more robust testing than non-memory ICs in order to achieve the quality and reliability requirements of advanced networking systems. We have considered these requirements for our target customers and market segments and have incorporated design and manufacturing performance margins into our Bandwidth Engine IC products to accommodate them. As a result, production units of our Bandwidth Engine ICs have passed extensive reliability and life tests required for carrier and enterprise grade qualification certification.

Our Strategy

Our primary business objective is to be an IP-rich fabless semiconductor company offering ICs that deliver unparalleled bandwidth performance for next generation networking systems. The key components of the expansion of our strategic plan to become an IC supplier include the following strategies:

Target Large and Growing Markets

Our initial strategy is to target the multi-billion dollar networking and telecommunications OEM equipment market, and to date, we have secured approximately 40 design wins with networking and telecommunications OEMs. However, there is no assurance that these customer designs will be shipped in large volume by our customers to their customers. We are engaged with both existing customers and customer prospects, where we are working to achieve design wins, and we refer to these engagements as design-wins-in-progress.

Leverage Technologies to Create New Products

Our strategy is to combine our proprietary IP and design and applications expertise to address the needs of several upcoming generations of advanced networking systems. We believe an IC combining our 1T-SRAM and serial I/O with logic, such as in an ALU, and other functions can provide a system-level solution and significantly improve overall system performance at lower cost while using less power. Another strategy is to leverage our high-speed serial I/O to create non-memory denominated ICs.

Expand Adoption of the GigaChip Interface Protocol

Our goal is for our GCI interface protocol to become an open industry standard that is designed into other ICs in the system, as we believe this will further enable serial communication on network line cards and encourage adoption of our Bandwidth Engine IC products. A number of IC providers have publicly announced their intention to support GCI, including the largest FPGA providers, Altera Corporation and Xilinx, Inc., with whom we work closely to support common customers. In addition, multiple networking systems companies, including actual and prospective customers, have adopted GCI.

Build Long-Term Relationships with Suppliers of Packet Processors

We believe that having long-term relationships with packet processor providers is critical to our success, as such relationships may enable us to reduce our time-to-market, provide us with a competitive advantage and expand our target markets. A key consideration of network system designers is to demonstrate interoperability between our Bandwidth Engine IC and the packet processors utilized in their systems. To obtain design wins for our Bandwidth Engine IC, we must demonstrate this interoperability, and also show that our IC works optimally with the packet processor to achieve the

Table of Contents

performance requirements. In addition, packet processor suppliers must adopt our GCI interface. To that end, we have been working closely with FPGA, ASIC and NPU providers, to enable interoperability between our Bandwidth Engine IC products and their high-performance products. To facilitate the acceptance of our Bandwidth Engine ICs, we have made available development and characterization kits for system designers to evaluate and develop code for next-generation networking systems. Our characterization kits are fully-functional hardware platforms that allow FPGA and ASIC providers, and their customers, to demonstrate interoperability of the Bandwidth Engine IC with the ASIC or FPGA the designers use within their networking systems.

Our Products

Bandwidth Engine

The Bandwidth Engine is a memory-dominated IC that has been designed to be a high-performance companion IC to packet processors. While the Bandwidth Engine primarily functions as a memory device with a high-performance and high-efficiency interface, it also can accelerate certain processing operations by serving as a co-processor element. Our Bandwidth Engine ICs combine: (1) our proprietary high-density, high-speed, low latency embedded memory, (2) our high-speed serial interface technology, or SerDes, (3) an open-standard interface protocol and (4) intelligent access technology. We believe an IC combining our 1T-SRAM memory and serial I/O with logic and other intelligence functions provides a system-level solution and significantly improves overall system performance at lower cost, size and power consumption. Our Bandwidth Engine ICs can provide up to and over 4.5 billion memory accesses per second, which is more than twice the performance of current memory-based solutions. They also can enable system designers to significantly narrow the gap between processor and memory IC performance. Customers that design Bandwidth Engine ICs onto the line cards in their networking systems will re-architect their systems at the line-card level and use our product to replace traditional memory solutions. When compared with existing commercially available solutions, our Bandwidth Engine ICs may:

provide up to four times the performance;

reduce power by approximately 50%;

reduce cost by greater than 50%; and

result in a dramatic reduction in IC pin counts on the line card.

Our first generation Bandwidth Engine IC products contain 576 megabytes, or MB, of memory and use a serial I/O with up to 16 lanes operating at up to 10.3 Gbps per lane. Variations of this IC can have up to two interface ports, with up to eight serial receiver and eight serial transmitter lanes per port for a total of 16 lanes of 10.3 Gbps SerDes interface. These ICs include an ALU, which can perform read-modify-write operations. These ICs are tested to meet or exceed the standards for telecommunications carrier-class and enterprise-grade applications.

Our second generation Bandwidth Engine IC products contain 576 MB of memory and use serial I/O with up to 16 lanes operating at up to 15 Gbps per lane. In addition to a speed improvement of up to 50%, the architecture will enable several family member parts with added specialized features. To date, we have announced three unique devices in this product family:

MSR620 with burst features optimized for oversubscription buffer applications;

MSR720 with a write cache and memory coherency capability that allows for deterministic look ups optimized for state and queue type applications; and

Table of Contents

MSR820 with increased intelligence for lookup, metering and statistics applications by adding dual counters, atomic and extensive metering functions.

We announced the architecture of our third generation Bandwidth Engine IC, which offers 800 Gbps I/O performance, up to 10 billion data accesses per second and 1 Gb of high access rate embedded 1T-SRAM memory. We expect to commence sampling this product in the second half of 2015.

The devices provide benefits of size, power, pin count and cost savings to our customers.

LineSpeed

Our first generation LineSpeed products consist of single-chip PHY ICs, including a 100G multi-mode gearbox and a 100G quad retimer. These devices are designed to support 10G, 40G and 100G standards for high-density line cards or modules for next generation ethernet and optical transport network applications. Built using standard CMOS technology, these devices are capable of supporting both short and long reach connections across different specifications.

In 2014, we introduced our LineSpeed 100G low power retimer, which is optimized for ultra low power consumption, integrated test features and small size. The low-power retimer is primarily targeting opportunities in 100G CFP2, CFP4 and QSFP28 optical modules and active copper cables. We do not anticipate revenues from our LineSpeed ICs until 2016 or later.

IP Licensing and Distribution

Historically, we have offered our memory and I/O technologies on a worldwide basis to semiconductor companies, electronic product manufacturers, foundries, intellectual property companies and design companies through product development, technology licensing and joint marketing relationships. We licensed our IP technology to semiconductor companies who incorporated our technology into ICs that they sold to their customers. As a result of the change in our corporate strategy, since early 2012, our IP licensing activities have been limited, and we expect this to continue. However, during 2014, 58% of our total revenues were generated from licensing and royalties related to our existing licensing arrangements, as we continue to perform and deliver under outstanding license agreements and collect royalties from 1T-SRAM licensees. To date, we have completed our performance obligations under our existing licensing agreements, and we expect licensing and royalty revenues to decline in 2015.

Research and Development

Our ability to compete in the future depends on successfully improving our technology to meet the market's increasing demand for higher performance and lower cost requirements. We have assembled a team of highly skilled engineers whose activities are focused on developing higher density, higher bandwidth, higher speed and lower cost next generation IC products. Development of our IC products requires the hiring of specialized chip design and product engineers, as well as significant fabrication and testing costs, including mask costs, as we bring these products to market. Our significant future research and development activities will include:

designing next generation ICs with larger memory blocks and higher-speed SerDes;

developing versions of our Bandwidth Engine ICs with alternative features, such as lower-speed SerDes, increased chip-level intelligence or smaller memory blocks to allow us to serve a broader range of applications and systems;

Table of Contents

developing versions of our LineSpeed ICs to meet customer demands, such as higher density, lower power and higher speeds;

porting our 1T-SRAM and SerDes technology to more advanced foundry process nodes to support our IC development efforts; and

developing new products that can leverage our proprietary IP portfolio and expand our market opportunity.

No development efforts are being dedicated to creating new or enhanced technology solely for use in licensing offerings.

Sales and Marketing

We believe that networking and communications systems OEMs typically prefer to extend the use of traditional memory solutions and their parallel interfaces, despite performance and costs challenges and are reluctant to change their technology platforms and adopt new designs and technologies, such as serial interfaces, which are an integral part of our product solutions. Therefore, our principal selling and marketing activities to date have been focused on persuading these OEMs and key component suppliers that our solutions provide critical performance advantages, as well as on securing design wins with them.

As of December 31, 2014, we had eight sales and marketing personnel managing and supporting our efforts to secure design wins for our IC products. Our sales and marketing personnel are located in the United States, Japan and China. We also have eight applications engineers who support our customer engagements and work closely with our engineering team on product definition. In addition to our direct sales team, we sell through sales representatives and distributors in the United States and Asia. We also have eight applications engineers who support our customer engagements and work closely with our engineering team on product definition. For our products, our applications engineers must engage with the customers' system architects and designers to propose our IC and IP, e.g., GCI Interface, solutions to address their systems' challenges. In the markets we serve, the time from initial customer engagement to design win to production volume shipments can range from two to three years. Networking and communications systems can have a product life from a few years to over 10 years.

Our revenue has been highly concentrated, with a few customers accounting for a significant percentage of our total revenue. For the year ended December 31, 2014, Taiwan Semiconductor Manufacturing Co., Ltd., or TSMC, Kogent, Inc. and Broadcom, represented 34%, 31% and 11% of total revenue, respectively. For the year ended December 31, 2013, TSMC and Broadcom, licensees of our memory IP, represented 41% and 13% of total revenue, respectively. For the year ended December 31, 2012, TSMC, Broadcom and Renesas Electronics Corporation, licensees of our memory IP, represented 28%, 26% and 12% of total revenue, respectively.

Customers in North America accounted for 28%, 30% and 41% of our revenues for the years ended December 31, 2014, 2013 and 2012, respectively. Customers in Japan accounted for 36%, 27% and 26% of our revenues for the years ended December 31, 2014, 2013 and 2012, respectively. Customers in Taiwan accounted for 35%, 42% and 28% of our revenues for the years ended December 31, 2014, 2013 and 2012, respectively. Our remaining revenues were from customers in the rest of Asia and in Europe.

Intellectual Property

We regard our patents, copyrights, trademarks, trade secrets and similar intellectual property as critical to our success, and rely on a combination of patent, trademark, copyright, and trade secret laws to protect our proprietary rights.

Table of Contents

As of December 31, 2014, we held approximately 68 U.S. and 22 foreign patents on various aspects of our technology, with expiration dates ranging from 2015 to 2031. We currently have approximately 40 pending patent applications in the U.S. and abroad. There can be no assurance that others will not independently develop or patent similar or competing technology or design around any patents that may be issued to us, or that we will be able to successfully enforce our patents against infringement by others.

In December 2011, we sold 43 United States and 30 related foreign memory technology patents for \$35 million in cash pursuant to a patent purchase agreement. Under the agreement, we retained a license to all of the sold patents that is unlimited with respect to our development, manufacturing and distribution of our Bandwidth Engine IC product line and any other proprietary products that we develop as long as they are not DRAM ICs. We also retained the rights necessary to renew existing 1T-SRAM licenses and to grant licenses similar in scope to identified foundries. We also retained rights to grant licenses for our second source purposes, to enable certain kinds of technology development and, to a limited extent, for certain ASIC products that incorporate one of our technology macros. However, the patent purchase agreement limits our rights to grant licenses under the sold patents outside the scope of our retained license and, in particular, limits the number of future licenses of 1T-SRAM memory technology that we can grant to developers of SoCs, which used to be the principal focus of our 1T-SRAM licensing activities.

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. Our licensees or we might, from time to time, receive notice of claims that we have infringed patents or other intellectual property rights owned by others. Our successful protection of our patents and other intellectual property rights and our ability to make, use, import, offer to sell, and sell products free from the intellectual property rights of others are subject to a number of factors, particularly those described in the section entitled Risk Factors.

Competition

The markets for our products are highly competitive. We believe that the principal competitive factors are:

processing speed and performance;

density and cost;

power consumption;

reliability;

interface requirements;

ease with which technology can be customized for and incorporated into customers' products; and

level of technical support provided.

We believe that we can compete favorably with respect to each of these criteria. Our proprietary 1T-SRAM embedded memory and high-speed serial I/O IP provides our Bandwidth Engine ICs with a competitive advantage over alternative devices. Alternative solutions are either DRAM or SRAM-based and can support either the memory size or speed requirements of high-performance networking systems, but generally not both. DRAM solutions provide a significant amount of memory at competitive cost, but DRAM solutions do not have the required fast access and cycle times to enable high-performance. The DRAM solutions currently used in networking systems include RLDRAM from Micron Technology, Inc., or Micron, and Integrated Silicon Solutions, Inc., LLDRAM from Renesas

Table of Contents

and DDR from Samsung Electronics Co., Ltd., Micron and others. In addition, Micron has announced a hybrid memory cube DRAM product, which consists of multiple DRAMs connected with a serial interface. SRAM solutions can meet high-speed performance requirements, but often lack adequate memory size. The SRAM solutions currently used in networking systems primarily include QDR or similar SRAM products from Cypress Semiconductor Corporation and GSI Technology, Inc. The majority of the currently available SRAM and DRAM solutions use a parallel, rather than a serial I/O. To offset these drawbacks, system designers generally use more discrete memory ICs, resulting in higher power consumption and greater utilization of space on the line card. Our competitors include established semiconductor companies with significantly longer operating histories, greater name recognition and reputation, large customer bases, dedicated manufacturing facilities and greater financial, technical, sales and marketing resources. This may allow them to respond more quickly than us to new or emerging technologies or changes in customer requirements. Many of our competitors also have significant influence in the semiconductor industry. They may be able to introduce new technologies or devote greater resources to the development, marketing and sales of their products than we can. Furthermore, in the event of a manufacturing capacity shortage, these competitors may be able to manufacture products when we are unable to do so.

Our Bandwidth Engine ICs compete with embedded memory solutions, stand-alone memory ICs, including both DRAM and SRAM ICs, and ASICs designed by customers in-house to meet their system requirements. Our prospective customers may be unwilling to adopt and design-in our ICs due to the uncertainties and risks surrounding designing a new IC into their systems and relying on a supplier that has limited history of manufacturing such ICs. In addition, Bandwidth Engine ICs require the customer and its other IC suppliers to implement our new chip-to-chip communication protocol, GCI. These parties may be unwilling to do this if they believe it could adversely impact their own future product developments or competitive advantages, or if they believe it might complicate their development process or increase the cost of their products. In order to remain competitive, we believe we must provide unparalleled memory IC solutions with the highest bandwidth capability for our target markets, which solutions are engineered and built for high-reliability carrier class and enterprise applications.

Our LineSpeed ICs compete with solutions offered by Applied Micro Circuits Corporation, Avago Technologies, Broadcom Corporation, Inphi Corporation, Semtech Corp., as well as other smaller analog signal processing companies. We may also compete with ASICs designed by customers in-house to meet their system requirements, as well as by optical module OEMs.

Manufacturing

We depend on third-party vendors to manufacture, package, assemble and test our IC products, as we do not own or operate a semiconductor fabrication, packaging or production testing facility for boards and system assembly. By outsourcing manufacturing, we are able to avoid the high cost associated with owning and operating our own facilities, allowing us to focus our efforts on the design and marketing of our products.

We perform an ongoing review of product manufacturing and testing processes. Our IC products are subjected to extensive testing to assess whether their performance meet design specifications. Our test vendors provide us with immediate test data and the ability to generate characterization reports that are made available to our customers. We have achieved ISO 9001:2008 certification, and all of our manufacturing vendors have also achieved ISO 9001 certification.

Employees

As of December 31, 2014, we had 116 employees, consisting of 86 in research and development and engineering, 8 in sales and marketing, 11 in manufacturing operations and 11 in finance and administration. By location, we had 89 employees in the United States, 25 in our development center in India and 2 sales and marketing employees in Asia. We believe our future success depends, in part, on our ability to continue to attract and retain qualified technical and management personnel, particularly highly skilled design engineers involved in new product development, for which competition is intense. We believe that our employee relations are good.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

General

The following description of our capital stock and provisions of our certificate of incorporation and bylaws is a summary only and not a complete description.

Our authorized capital stock consists of 120,000,000 shares of common stock, par value \$0.01 per share, and 20,000,000 shares of preferred stock, par value \$0.01 per share.

Common Stock

As of February 1, 2015, 49,793,187 shares of our common stock were outstanding and held of record by 16 stockholders. Each holder of our common stock is entitled to

one vote per share on all matters submitted to a vote of the stockholders;

dividends as may be declared by our board of directors out of funds legally available for that purpose, subject to the rights of any preferred stock that may be outstanding; and

his, her or its pro rata share in any distribution of our assets after payment or providing for the payment of liabilities and the liquidation preference of any outstanding preferred stock in the event of liquidation.

Holders of common stock have no cumulative voting rights, redemption rights or preemptive rights to purchase or subscribe for any shares of our common stock or other securities. All of the outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

We have designated 120,000 shares of our preferred stock as Series AA preferred stock for issuance pursuant to the exercise of rights under our rights plan, none of which are outstanding. For more information on the rights plan, see the discussion below under "Antitakeover Effects of Our Stockholder Rights Plan". We have no current intention to issue any other shares of preferred stock.

Our board of directors has the authority, subject to any limitations prescribed by Delaware law, to issue shares of preferred stock in one or more series and to fix and determine the relative rights and preferences of the shares constituting any series to be established, without any further vote or action by the stockholders. Any shares of our preferred stock so issued may have priority over our common stock with respect to dividend, liquidation and other rights.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Although the issuance of preferred stock could provide us with flexibility in connection with possible acquisitions and other corporate purposes, under some circumstances, it could have the effect of delaying, deferring or preventing a change of control.

Antitakeover Effects of Provisions of Our Certificate of Incorporation and Bylaws and of Delaware Law

Certain provisions of our charter documents and Delaware law could have an antitakeover effect and could delay, discourage or prevent a tender offer or takeover attempt that a stockholder might

Table of Contents

consider to be in its best interests, including attempts that might otherwise result in a premium being paid over the market price of our common stock.

Certificate of Incorporation and Bylaws. Our certificate of incorporation provides that stockholders can take action only at a duly called annual or special meeting of the stockholders and not by written consent. At the same time, our bylaws provide that special meetings of stockholders may be called only by our chairman of the board, our chief executive officer, any officer at the request in writing of a majority of the directors or by the holders of at least 25% of our outstanding shares. These provisions could delay consideration of a stockholder proposal until the next annual meeting.

Our bylaws provide for an advance notice procedure for the nomination, other than by or at the direction of our board of directors, of candidates for election as directors, as well as for other stockholder proposals to be considered at annual meetings of stockholders. In addition, under our bylaws newly created directorships resulting from any increase in the number of directors or any vacancies in the board resulting from death, resignation, retirement, disqualification, removal from office or other cause during a director's term in office can be filled by the vote of the remaining directors in office, and the board is expressly authorized to amend the bylaws without stockholder consent. These provisions may preclude a third party from removing incumbent directors and can control of our board of directors. Accordingly, these provisions could discourage a third party from initiating a proxy contest, making a tender offer or otherwise attempting to gain control of our company.

Delaware Takeover Statute. Section 203 of the Delaware General Corporation Law, or DGCL, generally prohibits a publicly-held Delaware corporation from engaging in an acquisition, asset sale or other transaction resulting in a financial benefit to any person who, together with affiliates and associates, owns, or within three years did own, 15% or more of a corporation's voting stock. The prohibition continues for a period of three years after the date of the transaction in which the person becomes an owner of 15% or more of the corporation's voting stock, unless the business combination is approved in a prescribed manner. The statute could prohibit, delay, defer or prevent a change in control with respect to our company.

Antitakeover Effects of Our Stockholder Rights Plan

On November 10, 2010, we executed a rights agreement in connection with the declaration by our board of directors of a dividend of one preferred stock purchase right to be paid on November 10, 2010, referred to as the "record date," for each share of our common stock issued and outstanding at the close of business on the record date. Each right entitles the registered holder to purchase one one-thousandth of a share of our Series AA Preferred Stock, \$0.01 par value per share, at a price of \$48.00 per one one-thousandth of a share of such Series AA Preferred Stock, subject to adjustment. The rights will not be exercisable until a third party acquires 15% of our common stock or commences or announces its intent to commence a tender offer for at least 15% of our common stock, other than holders of "grandfathered stock" as defined below.

"Grandfathered stock" refers to stock held by Carl E. Berg, formerly a member of our board of directors for approximately 20 years, and his affiliates. The beneficial ownership threshold for a holder of grandfathered stock is 20%, rather than 15%. In addition, under the rights agreement, the firm of Ingalls & Snyder, or I&S, and its managed account beneficial owners collectively will not trigger the rights as long as none of their shares are held for the purpose of acquiring control or effecting change or influence in control of us. This exclusion applies only to shares of common stock for which there is only shared dispositive power and I&S has only non-discretionary voting power.

Table of Contents

The rights agreement could delay, deter or prevent an investor from acquiring us in a transaction that could otherwise result in our stockholders receiving a premium over the market price for their shares of common stock.

Transfer Agent

The transfer agent and registrar for our common stock is Wells Fargo Bank, N.A.

S-47

Table of Contents

UNDERWRITING

We have entered into an underwriting agreement with the several underwriters listed in the table below. Roth Capital Partners, LLC is the representative of the underwriters. We refer to the underwriters listed in the table below as the "underwriters." Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and the underwriters have agreed to purchase from us, _____ shares of our common stock. Our common stock trades on the Global Market of the NASDAQ Stock Market under the symbol "MOSY."

Pursuant to the terms and subject to the conditions contained in the underwriting agreement, we have agreed to sell to the underwriters named below, and each underwriter severally has agreed to purchase from us, the respective number of shares of common stock set forth opposite its name below:

Underwriter	Number of Shares
Roth Capital Partners, LLC	
The Benchmark Company	
Total	

The underwriting agreement provides that the obligation of the underwriters to purchase the shares of common stock offered by this prospectus supplement and the accompanying prospectus is subject to certain conditions. The underwriters are obligated to purchase all of the shares of common stock offered hereby if any of the shares are purchased. Our chief executive officer and chief operating officer have indicated that they intend to purchase approximately \$ _____ of the shares we sell in this offering at the public offering price.

We have granted the underwriters an option to buy up to an additional _____ shares of common stock from us at the public offering price, less the underwriting discounts and commissions, to cover over-allotments, if any. The underwriters may exercise this option at any time, in whole or in part, during the 30-day period after the date of this prospectus supplement; however, the underwriters may only exercise the option once.

Discounts, Commissions and Expenses

The underwriters propose to offer to the shares of common stock purchased pursuant to the underwriting agreement to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ _____ per share. After this offering, the public offering price and concession may be changed by the underwriters. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

In connection with the sale of the common stock to be purchased by the underwriters, the underwriters will be deemed to have received compensation in the form of underwriting commissions and discounts. The underwriters' commissions and discounts will be _____ % of the gross proceeds of this offering, or \$ _____ per share of common stock, based on the public offering price per share set forth on the cover page of this prospectus supplement.

We have also agreed to reimburse Roth Capital Partners at closing for legal expenses incurred by it in connection with the offering up to a maximum of \$75,000. Roth Capital Partners has agreed to pay, on our behalf, an advisor an aggregate of \$25,000 for past services rendered to us.

The following table shows the underwriting discounts and commissions payable to the underwriters by us in connection with this offering (assuming both the exercise and non-exercise of the

Table of Contents

over-allotment option to purchase additional shares of common stock we have granted to the underwriters):

	Per Share		Total	
	Without Over-allotment	With Over-allotment	Without Over-allotment	With Over-allotment
Public offering price				
Underwriting discounts and commissions paid by us				

Indemnification

Pursuant to the underwriting agreement, we have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that the underwriters or such other indemnified parties may be required to make in respect of those liabilities.

Lock-Up Agreements

We have agreed not to (i) offer, pledge, issue, sell, contract to sell, purchase, contract to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock; (ii) enter into any swap or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of shares of common stock; or (iii) file any registration statement with the SEC relating to the offering of any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock, without the prior written consent of Roth Capital Partners for a period of 90 days following the date of this prospectus supplement, subject to an 18-day extension under certain circumstances (the "Lock-up Period"). This consent may be given at any time without public notice. These restrictions on future issuances are subject to exceptions for (i) the issuance of shares of our common stock sold in this offering, (ii) the issuance of shares of our common stock upon the exercise of outstanding options or warrants and the vesting of restricted stock awards or units, (iii) the issuance of employee stock options not exercisable during the Lock-up Period and the grant, redemption or forfeiture of restricted stock awards or restricted stock units pursuant to our equity incentive plans or as new employee inducement grants, and (iv) the issuance of common stock or warrants to purchase common stock in connection with mergers or acquisitions of securities, businesses, property or other assets, joint ventures, strategic alliances, equipment leasing arrangements or debt financing and

In addition, each of our directors and executive officers has entered into a lock-up agreement with the underwriters. Under the lock-up agreements, the directors and executive officers may not, directly or indirectly, sell, offer to sell, contract to sell, or grant any option for the sale (including any short sale), grant any security interest in, pledge, hypothecate, hedge, establish an open "put equivalent position" (within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended, or the Exchange Act), or otherwise dispose of, or enter into any transaction which is designed to or could be expected to result in the disposition of, any shares of our common stock or securities convertible into or exchangeable for shares of our common stock, or publicly announce any intention to do any of the foregoing, without the prior written consent of Roth Capital Partners, for a period of 90 days from the closing date of this offering, subject to an 18-day extension under certain circumstances. This consent may be given at any time without public notice. These restrictions on future dispositions by our directors and executive officers are subject to exceptions for (i) one or more bona fide gift transfers of securities to immediate family members who agree to be bound by these restrictions, (ii) transfers of securities to one or more trusts for bona fide estate planning purposes and (iii) the transfer of common stock to the company upon the vesting of restricted stock units on a "cashless" or "net exercise" basis to cover tax withholding obligations of the undersigned in connection

Table of Contents

with such vesting.. Each officer and director shall be immediately and automatically released from all restrictions and obligations under the lock up agreement in the event that he or she ceases to be a director or officer of our company and has no further reporting obligations under Section 16 of the Exchange Act.

Electronic Distribution

This prospectus supplement and the accompanying prospectus may be made available in electronic format on websites or through other online services maintained by the underwriters or by their affiliates. In those cases, prospective investors may view offering terms online and prospective investors may be allowed to place orders online. Other than this prospectus supplement and the accompanying prospectus in electronic format, the information on the underwriters' websites or our website and any information contained in any other websites maintained by the underwriters or by us is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus forms a part, has not been approved and/or endorsed by us or the underwriter in its capacity as underwriter, and should not be relied upon by investors.

Price Stabilization, Short Positions and Penalty Bids

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act:

Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.

Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. A naked short position occurs if the underwriters sell more shares than could be covered by the over-allotment option. This position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of our common stock may be higher than

Table of Contents

the price that might otherwise exist in the open market. These transactions may be discontinued at any time.

Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our shares of common stock. In addition, neither we nor the underwriters make any representation that the underwriter will engage in these transactions or that any transaction, if commenced, will not be discontinued without notice.

Selling Restrictions

European Economic Area

This prospectus supplement and the accompanying prospectus does not constitute an approved prospectus under Directive 2003/71/EC and no such prospectus is intended to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented Directive 2003/71/EC (each, a "Relevant Member State") an offer to the public of any shares of common stock which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any shares of common stock may be made at any time under the following exemptions under the Prospectus Directive, if and to the extent that they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the representatives of the underwriter for any such offer; or
- (c) in any other circumstances which do not require any person to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase any shares of common stock, as the expression may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (and any amendments thereto including the 2010 PD Amending Directive to the extent implemented in each Relevant Member State) and includes any relevant implementing measure in each Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

This prospectus supplement and the accompanying prospectus are not an approved prospectus for purposes of the UK Prospectus Rules, as implemented under the EU Prospectus Directive (2003/71/EC), and have not been approved under section 21 of the Financial Services and Markets Act 2000 (as amended) (the "FSMA") by a person authorized under FSMA. The financial promotions contained in this prospectus supplement and the accompanying prospectus are directed at, and this prospectus supplement and the accompanying prospectus are only being distributed to, (1) persons who receive this prospectus supplement and the accompanying prospectus outside of the United Kingdom, and (2) persons in the United Kingdom who fall within the exemptions under articles 19 (investment

Table of Contents

professionals) and 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons together being referred to as "Relevant Persons"). This prospectus supplement and the accompanying prospectus must not be acted upon or relied upon by any person who is not a Relevant Person. Any investment or investment activity to which this prospectus supplement and the accompanying prospectus relate is available only to Relevant Persons and will be engaged in only with Relevant Persons. This prospectus supplement and the accompanying prospectus and their contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person that is not a Relevant Person.

The underwriter has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA in connection with the issue or sale of any of the shares of common stock in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and

(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of common stock in, from or otherwise involving the United Kingdom.

S-52

Table of Contents

LEGAL MATTERS

The validity of the issuance of shares of common stock offered hereby will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, Palo Alto, California. K&L Gates LLP, Los Angeles, California, is counsel to the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements of MoSys, Inc. as of December 31, 2013 and 2012 and for each of the three years in the period ended December 31, 2013 and the effectiveness of internal control over financial reporting as of December 31, 2013 (which is included in management's report on internal control over financial reporting), incorporated in this prospectus supplement by reference to MoSys, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2013, have been so incorporated in reliance on the report of Burr Pilger Mayer, Inc., an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports and other information with the SEC. In addition, we have filed with the SEC a Registration Statement on Form S-3, of which this prospectus supplement and the accompanying prospectus is a part, under the Securities Act, with respect to the shares of common stock offered hereby. You may read and obtain copies at prescribed rates of any document that we file with the SEC at its Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. Our SEC filings are also available to you free of charge at the SEC's web site at <http://www.sec.gov>, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Our common stock is traded on the Global Market of the NASDAQ Stock Market. Material filed by us can be inspected at the offices of the Financial Industry Regulatory Authority, 1735 K Street, N.W., Washington, D.C. 20006.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be part of the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below:

- (a) our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the SEC on March 14, 2014;
- (b) our Quarterly Report on Form 10-Q for the fiscal quarters ended March 31, 2014, June 30, 2014 and September 30, 2014 filed with the SEC on May 12, 2014, August 8, 2014 and November 7, 2014, respectively;
- (c) the information contained in our definitive proxy statement on Schedule 14A filed with the SEC on April 29, 2014 and incorporated into Part III of our Annual Report on Form 10-K for the year ended December 31, 2013;
- (d) our Current Report on Form 8-K filed with the SEC on June 4, 2014; and

Edgar Filing: MoSys, Inc. - Form 424B5

Table of Contents

- (g) the description of our capital stock set forth in our Registration Statement on Form 8-A, filed with the SEC on June 26, 2001, as amended by Amendment No. 2 to Registration Statement on Form 8-A/A, filed with the SEC on November 12, 2010, Amendment No. 3 on Form 8-A/A, filed on July 27, 2011, and Amendment No. 4 on Form 8-A/A, filed on May 24, 2012.

In addition, all filed information contained in reports and documents filed with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of filing the registration statement that includes the accompanying prospectus and prior to the filing of a post-effective amendment to the registration statement containing the accompanying prospectus, which indicates that all securities offered have been sold or which deregisters all of such securities then remaining unsold, shall be deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus and to be a part thereof from the respective dates of filing of such documents.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

MoSys, Inc.
3301 Olcott Street
Santa Clara, CA 95054
(408) 418-7500
Attention: Chief Financial Officer

In addition, you may obtain a copy of these filings from the SEC as described above in the section entitled "Where You Can Find More Information."

Table of Contents

PROSPECTUS

\$50,000,000

Debt Securities

Preferred Stock

Common Stock

Warrants

MoSys, Inc.

**3301 Olcott Street
Santa Clara, CA 95054
(408) 418-7500**

We may offer from time to time:

Debt securities;

Shares of our Common Stock;

Shares of our Preferred Stock; and

Warrants to purchase any of the other securities that may be sold under this prospectus.

The securities we offer will have an aggregate public offering price of up to \$50 million. We will provide specific terms of any offering in supplements to this prospectus. The securities may be offered separately or together in any combination and as separate series. You should read this prospectus and any prospectus supplement carefully before you invest.

We may sell these securities on a continuous or delayed basis directly, through agents, dealers or underwriters as designated from time to time, or through a combination of these methods. We reserve the sole right to accept, and together with any agents, dealers and underwriters, reserve the right to reject, in whole or in part, any proposed purchase of securities. If any agents, dealers or underwriters are involved in the sale of any securities, the applicable prospectus supplement will set forth any applicable commissions or discounts. Our net proceeds from the sale of securities also will be set forth in the applicable prospectus supplement.

Our common stock is listed on the Global Market of the NASDAQ Stock Market under the symbol "MOSY."

INVESTING IN OUR SECURITIES INVOLVES RISKS.

SEE "*RISK FACTORS*" ON PAGE 5.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Table of Contents

TABLE OF CONTENTS

<u>About This Prospectus</u>	<u>3</u>
<u>Special Note Regarding Forward-Looking Statements</u>	<u>3</u>
<u>Our Company</u>	<u>3</u>
<u>Risk Factors</u>	<u>3</u>
<u>Ratio of Earnings To Fixed Charges</u>	<u>5</u>
<u>Use of Proceeds</u>	<u>5</u>
<u>General Description of Securities That We May Sell</u>	<u>5</u>
<u>Description of Debt Securities</u>	<u>6</u>
<u>Description of Capital Stock</u>	<u>6</u>
<u>Description of Warrants</u>	<u>17</u>
<u>Plan of Distribution</u>	<u>21</u>
<u>Experts</u>	<u>23</u>
<u>Legal Matters</u>	<u>24</u>
<u>Where You Can Find More Information</u>	<u>25</u>
<u>Incorporation By Reference</u>	<u>25</u>

In this prospectus, "MoSys," "we," "us," and "our" refer to MoSys, Inc. and its subsidiaries.

You should rely only on information contained or incorporated by reference in this prospectus. We have not authorized any person to provide you with information that differs from what is contained or incorporated by reference in this prospectus. If any person does provide you with information that differs from what is contained or incorporated by reference in this prospectus, you should not rely on it. This prospectus is not an offer to sell or the solicitation of an offer to buy any securities other than the securities to which it relates, or an offer of solicitation in any jurisdiction where offers or sales are not permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, even though this prospectus may be delivered or shares may be sold under this prospectus on a later date.

Table of Contents

About This Prospectus

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC or the Commission, using a "shelf" registration process. Under the shelf process, we may, from time to time, issue and sell to the public any or all of the securities described in the registration statement in one or more offerings.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide a prospectus supplement that will describe the specific amounts, prices, and terms of the securities we offer. The prospectus supplement also may add, update, or change information contained in this prospectus. This prospectus, together with applicable prospectus supplements, includes all material information relating to this offering. If there is any inconsistency between the information in this prospectus and the information in the accompanying prospectus supplement, you should rely on the information in the prospectus supplement. Please carefully read both this prospectus and any prospectus supplement together with the additional information described below under the section entitled "Where You Can Find More Information."

We may sell the securities to or through underwriters, dealers, or agents or directly to purchasers. We and our agents reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. A prospectus supplement, which we will provide each time we offer securities, will provide the names of any underwriters, dealers or agents involved in the sale of the securities, and any applicable fee, commission, or discount arrangements with them.

Special Note Regarding Forward-Looking Statements

Some of the statements in this prospectus constitute forward-looking statements. These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. These factors include, among others, those incorporated by reference under "Risk Factors" below.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," or "continue" or similar terms.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Our actual results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors incorporated by reference under the heading "Risk Factors" below and a variety of other factors, including, without limitation, statements about our future business operations and results, the market for our technology, our strategy and competition.

Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements. We undertake no obligation to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. In light of these risks, uncertainties and assumptions, the forward-looking events discussed or incorporated by reference in this prospectus may not occur.

Our Company

We are a fabless semiconductor company focused on the development and sale of integrated circuits, or ICs, for the high-speed networking, communications, storage and computing markets. Our technology delivers time-to-market, performance, power and economic benefits for system original

Table of Contents

equipment manufacturers, or OEMs. We have developed a family of ICs, called Bandwidth Engine, which combines our proprietary 1T-SRAM high-density embedded memory and high-speed 10 gigabits per second, or Gbps, and higher serial interface, or I/O, with our intelligent access technology and a highly efficient interface protocol, which we call the Gigachip Interface, or GCI. As the bandwidth requirements and amount of packet processing increase in high-speed networking systems, critical memory access bottlenecks can occur. Our Bandwidth Engine IC, with its combination of serial I/O, high-speed memory, and efficient, intelligent access, drastically increases memory accesses per second, removing these bottlenecks. We also market and sell another IC product line under the LineSpeed product name. LineSpeed ICs are non-memory, high-speed SerDes I/O devices with gearbox and retimer functionality, which convert lanes of data received on line cards into different configurations and/or ensure signal integrity.

We have developed our Bandwidth Engine and LineSpeed family of ICs to synergistically address the need for high-speed data access and throughput currently confronting networking system designers. We believe that our IC products meet the increasing demands placed on conventional memory technology used on the line cards in high-bandwidth networking systems.

Historically, our primary business was the design, development, marketing, sale and support of differentiated intellectual property, or IP, including embedded memory and high-speed parallel and serial I/O used in advanced systems-on-chips, or SoCs. We are focused on developing differentiated IP-rich IC products and are dedicating substantially all of our research and development, marketing and sales budget to these IC products. Due to the shift in our engineering and research and development focus and the decline in major consumer electronics applications utilizing customized versions of our 1T-SRAM technology, the competitiveness of, and demand for, licenses of our IP have declined since the beginning of 2011. We expect royalty revenue to continue to represent a significant portion of our revenues in 2014, although at a reduced level, revenue from sales of our IC products has been increasing. We expect our revenue from IC product sales to represent a majority of our revenues beginning in 2014. We are currently supporting existing design-win customers and actively pursuing additional design wins for the use of our ICs in networking and communication equipment. Our future success and ability to achieve and maintain profitability will be dependent on the manufacturing, marketing and sales of our IC products into networking, communications and other end-customer applications markets requiring high performance.

Our Strategy

Our primary business objective is to become an IP-rich fabless semiconductor company offering ICs that deliver unparalleled bandwidth performance for next generation networking systems. The key components of the expansion of our strategic plan to become an IC supplier include the following strategies:

Target Large and Growing Markets

Our initial strategy is to target the multi-billion dollar networking and telecommunications equipment market, and to date, we have secured multiple design wins with networking and telecommunications OEMs.

Leverage Technologies to Create New Products

Our strategy also is to combine our proprietary IP and design and applications expertise to address the needs of several upcoming generations of advanced networking equipment. To date, we have leveraged our serial I/O and analog design capabilities to bring our initial LineSpeed IC product family to market in 2013.

Table of Contents

Expand Adoption of the GigaChip Interface Protocol

Our goal is for our GCI interface protocol to become an open industry standard that is designed into other ICs in the system, as we believe this will further enable serial communication on network line cards and encourage adoption of our Bandwidth Engine IC products. A number of IC providers have publicly announced their intention to support GCI. In addition, multiple network equipment companies, including actual and prospective customers, have adopted GCI.

Build Long-Term Relationships with Suppliers of Packet Processors

We believe that having long-term relationships with packet processor providers is critical to our success, as such relationships may enable us to speed our time-to-market, provide us with a competitive advantage and expand our target markets. To obtain design wins for our Bandwidth Engine IC, we must demonstrate this interoperability, and also show that our IC works optimally with the packet processor to achieve the performance requirements. In addition, packet processor suppliers must adopt our GCI interface. To that end, we have been working closely with FPGA, ASIC and NPU providers, to enable interoperability between our Bandwidth Engine IC products and their high-performance products. To facilitate the acceptance of our Bandwidth Engine ICs, we have made available development and characterization kits for system designers to evaluate and develop code for next-generation networking systems.

We were founded in 1991. Our principal executive offices are located at 3301 Olcott Street, Santa Clara, CA 95054. Our telephone number at that address is (408) 418-7500.

Risk Factors

An investment in our common stock is risky. Prior to making a decision about investing in our common stock, you should carefully consider the specific risks discussed in our other filings with the SEC, which are incorporated by reference in this prospectus, together with all of the other information contained in this prospectus, any applicable prospectus supplement, or otherwise incorporated by reference in this prospectus. The risks and uncertainties described in our SEC filings are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of the risks or uncertainties described in the applicable prospectus supplement or our SEC filings or any such additional risks and uncertainties actually occur, our business, results of operations, cash flows and financial condition could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you might lose all or part of your investment.

Ratio of Earnings to Fixed Charges

If we offer debt securities and/or preference equity securities under this prospectus, then we will, at that time, provide a ratio of earnings to fixed charges and/or ratio of combined fixed charges and preference dividends to earnings, respectively, in the applicable prospectus supplement for such offering.

Use of Proceeds

We intend to use the net proceeds for working capital and other general corporate purposes, including expanding sales and marketing, research and development. We also might use a portion of the net proceeds for the acquisition of technologies, businesses or products that are complementary to our business, although no such acquisitions are planned or being negotiated as of the date of this prospectus, and no portion of the net proceeds has been allocated for any specific acquisition.

Table of Contents

The amounts we plan to spend on each area of our operations, including capital expenditures, as well as the timing of any expenditures, are determined by internal planning and budgeting processes, and may change over time. Pending such uses, the net proceeds of this offering will be invested according to a cash management policy adopted by our board of directors, which includes short-term, investment-grade securities.

General Description of Securities That We May Sell

We may offer and sell, at any time and from time to time:

Our debt securities, in one or more series, in each case consisting of notes or other unsecured evidences of indebtedness;

Shares of our common stock, par value \$0.01 per share;

Shares of our preferred stock, par value \$0.01 per share;

Warrants to purchase any of the other securities that may be sold under this prospectus; or

Any combination of these securities.

The terms of any securities we offer will be determined at the time of sale. We may issue debt securities that are exchangeable for and/or convertible into common stock or any of the other securities that may be sold under this prospectus. When particular securities are offered, a supplement to this prospectus will be filed with the SEC, which will describe the terms of the offering and sale of the offered securities.

Description of Debt Securities

We may issue debt securities in one or more distinct series. This section summarizes the terms of the debt securities that are common to all series. Most of the financial terms and other specific terms of any series of debt securities that we offer will be described in a prospectus supplement to be attached to the front of this prospectus. Because the terms of specific debt securities may differ from the general information we have provided below, if any information contained in a prospectus supplement contradicts the information below, you should rely on information in the prospectus supplement.

As required by federal law for all bonds and notes of companies that are publicly offered, the debt securities are governed by a document called an "indenture." An indenture is a contract between us and a financial institution acting as trustee of holders of the debt securities on behalf of the holders of the debt securities. The trustee has two main roles. First, the trustee can enforce the rights of holders of the debt securities against us if we default. There are some limitations on the extent to which the trustee acts on behalf of holders of the debt securities, described later under "Events of Default." Second, the trustee performs certain administrative duties for us.

The debt securities we offer will be issued under an indenture between us and the trustee named in the indenture. These debt securities that we may issue include senior debt securities, subordinated debt securities, convertible debt securities and exchangeable debt securities. The following is a summary of the material provisions of the indenture filed as an exhibit to the registration statement of which this prospectus is a part. For each series of debt securities, the applicable prospectus supplement for the series may change and supplement the summary below.

Because this section is a summary, it does not describe every aspect of the debt securities and the indenture. We urge you to read the indenture because it, and not this description, defines your rights as a holder of debt securities. For example, in this section, we use capitalized words to signify terms that are specifically defined in the indenture. Some of the definitions are repeated in this prospectus, but

Table of Contents

for the rest you will need to read the indenture. We have filed the form of the indenture as an exhibit to the registration statement that we have filed with the SEC. See "Where You Can Find More Information," above, for information on how to obtain a copy of the indenture.

General

Each series of debt securities, unless specified otherwise in the prospectus supplement, will be unsecured obligations of MoSys. Any senior unsecured debt securities that we may issue will rank equally with all other unsecured and unsubordinated indebtedness of ours. Any subordinated debt securities that we issue will be expressly subordinated in right of payment to the prior payment in full of our senior indebtedness. In addition, unless otherwise specified in the applicable prospectus supplement the debt securities will be structurally subordinated to all existing and future liabilities, including trade payables, of our subsidiaries, and the claims of creditors of those subsidiaries, including trade creditors, will have priority as to the assets and cash flows of those subsidiaries.

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and they may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us. For each series of debt securities, any restrictive covenants for those debt securities will be described in the applicable prospectus supplement for those debt securities.

You should read the prospectus supplement for the terms of the offered debt securities, including the following:

the title and authorized denominations of those debt securities;

any limit on the aggregate principal amount of that series of debt securities;

the date or dates on which principal and premium, if any, of the debt securities of that series is payable;

the price or prices at which MoSys will offer the debt securities;

the interest rate or rates, which may be fixed or variable, that the debt securities will bear, if any, or how the rate or rates will be determined, the date or dates from which any interest will accrue or how the date or dates will be determined, the interest payment dates, any record dates for these payments and the basis upon which interest will be calculated, if other than that of a 360-day year of twelve 30-day months;

the right, if any, to extend the interest payment periods and the duration of the extensions;

if the amount of payments of principal or interest is to be determined by reference to an index or formula, or based on a coin or currency other than that in which the debt securities are stated to be payable, the manner in which these amounts are determined and the calculation agent, if any, with respect thereto;

the place or places where and the manner in which principal of, premium, if any, and interest, if any, on the debt securities of that series will be payable and the place or places where those debt securities may be presented for transfer and, if applicable, conversion or exchange;

the period or periods within which, the price or prices at which, the currency or currencies in which, and other terms and conditions upon which those debt securities may be redeemed, in whole or in part, at our option or the option of a holder of those securities, if we or a holder is to have that option;

Table of Contents

our obligation or right, if any, to redeem, repay or purchase those debt securities pursuant to any sinking fund or analogous provision or at the option of a holder of those securities, and the terms and conditions upon which the debt securities will be redeemed, repaid or purchased, in whole or in part, pursuant to that obligation;

the terms, if any, on which the debt securities of that series will be subordinate in right and priority of payment to our other debt;

the denominations in which those debt securities will be issuable;

if other than the entire principal amount of the debt securities when issued, the portion of the principal amount payable upon acceleration of maturity as a result of a default on our obligations;

whether those debt securities will be issued in fully registered form without coupons or in a form registered as to principal only with coupons or in bearer form with coupons;

whether any securities of that series are to be issued in whole or in part the form of one or more global securities and the depositary for those global securities;

if other than United States dollars, the currency or currencies in which payment of principal of or any premium or interest on those debt securities will be payable;

if the principal of or any premium or interest on the debt securities of that series is to be payable, or is to be payable at our election or the election of a holder of those securities, in securities or other property, the type and amount of those securities or other property, or the manner of determining that amount, and the period or periods within which, and the terms and conditions upon which, any such election may be made;

the events of default and covenants relating to the debt securities that are in addition to, modify or delete those described in this prospectus;

conversion or exchange provisions, if any, including conversion or exchange prices or rates and adjustments thereto;

whether and upon what terms the debt securities may be defeased, if different from the provisions set forth in the indenture;

the nature and terms of any security for any secured debt securities;

the terms applicable to any debt securities issued at a discount from their stated principal amount;

any other specific terms of any debt securities;

any sinking fund or other provisions that would obligate us to repurchase or otherwise redeem the debt securities;

Edgar Filing: MoSys, Inc. - Form 424B5

any provisions granting special rights to the holders of the debt securities upon the occurrence of specified events; and
subordination provisions, if any, that will apply.

The applicable prospectus supplement will present material United States federal income tax considerations for holders of any debt securities and the securities exchange or quotation system on which any debt securities are to be listed or quoted.

Table of Contents

Conversion or Exchange Rights

Debt securities may be convertible into or exchangeable for shares of our equity securities or other securities. The terms and conditions of conversion or exchange will be stated in the applicable prospectus supplement. The terms will include, among others, the following:

the conversion or exchange price;

the conversion or exchange period;

provisions regarding our ability or the ability of any holder to convert or exchange the debt securities;

events requiring adjustment to the conversion or exchange price; and

provisions affecting conversion or exchange in the event of our redemption of the debt securities.

Consolidation, Merger or Sale

We cannot consolidate or merge with or into, or transfer or lease all or substantially all of our assets to, any person, unless the successor corporation or person to which our assets are transferred or leased is organized under the laws of the United States, any state of the United States or the District of Columbia and it expressly assumes our obligations under the debt securities and the indenture. In addition, we cannot complete such a transaction unless immediately after completing the transaction, no event of default under the indenture, and no event that, after notice or lapse of time or both, would become an event of default under the indenture, has occurred and is continuing. When the person to whom our assets are transferred or leased has assumed our obligations under the debt securities and the indenture, we will be discharged from all our obligations under the debt securities and the indenture except in limited circumstances.

This covenant would not apply to any recapitalization transaction, a change of control affecting us or a highly leveraged transaction, unless the transaction or change of control were structured to include a merger or consolidation or transfer or lease of all or substantially all of our assets.

Events of Default

The indenture provides that the following will be "events of default" with respect to any series of debt securities:

failure to pay interest for 30 days after the date payment is due and payable;

failure to pay principal or premium, if any, on any debt security when due, either at maturity, upon any redemption, by declaration or otherwise and, in the case of technical or administrative difficulties, only if such default persists for a period of more than three business days;

failure to make sinking fund payments when due and continuance of such default for a period of 30 days;

failure to perform other covenants for 90 days after notice that performance was required;

events in bankruptcy, insolvency or reorganization relating to us; or

Edgar Filing: MoSys, Inc. - Form 424B5

any other event of default provided in the applicable officer's certificate, resolution of our board of directors or the supplemental indenture under which we issue a series of debt securities.

An event of default for a particular series of debt securities does not necessarily constitute an event of default for any other series of debt securities issued under the indenture. For each series of

Table of Contents

debt securities, any modifications to the above events of default will be described in the applicable prospectus supplement for those debt securities.

The indenture provides that if an event of default specified in the first, second, third, fourth or sixth bullets above occurs and is continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series may declare the principal amount of all those debt securities (or, in the case of discount securities or indexed securities, that portion of the principal amount as may be specified in the terms of that series) to be due and payable immediately. If an event of default specified in the fifth bullet above occurs and is continuing, then the principal amount of all those debt securities (or, in the case of discount securities or indexed securities, that portion of the principal amount as may be specified in the terms of that series) will be due and payable immediately, without any declaration or other act on the part of the trustee or any holder. In certain cases, holders of a majority in principal amount of the outstanding debt securities of any series may, on behalf of holders of all those debt securities, rescind and annul a declaration of acceleration.

The indenture imposes limitations on suits brought by holders of debt securities against us. Except for actions for payment of overdue principal or interest, no holder of debt securities of any series may institute any action against us under the indenture unless:

the holder has previously given to the trustee written notice of default and continuance of such default;

the holders of at least 25% in principal amount of the outstanding debt securities of the affected series have requested that the trustee institute the action;

the requesting holders have offered the trustee indemnity for the reasonable expenses and liabilities that may be incurred by bringing the action;

the trustee has not instituted the action within 60 days of the request and offer of indemnity; and

the trustee has not received inconsistent direction by the holders of a majority in principal amount of the outstanding debt securities of the affected series.

We will be required to file annually with the trustee a certificate, signed by one of our officers, stating whether or not the officer knows of any default by us in the performance, observance or fulfillment of any condition or covenant of the indenture.

Covenants

The supplemental indenture with respect to any particular series of debt securities may contain covenants including, without limitation, covenants restricting or limiting:

the incurrence of additional debt, including guarantees, by us and our subsidiaries;

the making of various payments by us and our subsidiaries;

our business activities and those of our subsidiaries;

the issuance of other securities by our subsidiaries;

asset dispositions;

sale-leaseback transactions;

transactions with affiliates;

a change of control;

the incurrence of liens; and

Table of Contents

mergers and consolidations involving us and our subsidiaries.

For purposes of this prospectus, any reference to the payment of principal of, or premium or interest, if any, on, debt securities will include additional amounts if required by the terms of the debt securities, subject to the maximum offering amount under this prospectus.

The indenture does not limit the amount of debt securities that may be issued thereunder from time to time. The indenture also provides that there may be more than one trustee thereunder, with respect to one or more different series of indenture securities. See "Resignation of Trustee," below. At a time when two or more trustees are acting under the indenture, each with respect to only certain series, the term "indenture securities" means the one or more series of debt securities with respect to which each respective trustee is acting. In the event that there is more than one trustee under the indenture, the powers and trust obligations of each trustee described in this prospectus will extend only to the one or more series of indenture securities for which it is trustee. If two or more trustees are acting under the indenture, then the indenture securities for which each trustee is acting would be treated as if issued under separate indentures.

We have the ability to issue indenture securities with terms different from those of indenture securities previously issued and, without the consent of the holders thereof to reopen a previous issue of a series of indenture securities and issue additional indenture securities of that series unless the reopening was restricted when that series was created.

Methods of Calculating and Paying Interest on our Debt Securities

Each series of our debt securities will bear interest at a fixed or variable rate per annum shown on the front cover of the prospectus supplement under which that series is issued.

Discharge, Defeasance and Covenant Defeasance

We can discharge or decrease our obligations under the indenture as stated below.

We may discharge obligations to holders of any series of debt securities that have not already been delivered to the trustee for cancellation and that have either become due and payable or are by their terms to become due and payable, or are scheduled for redemption, within one year. We may effect a discharge by irrevocably depositing with the trustee cash or government obligations denominated in the currency of the debt securities, as trust funds, in an amount certified to be enough to pay when due, whether at maturity, upon redemption or otherwise, the principal of, and any premium and interest on, the debt securities and any mandatory sinking fund payments.

Unless otherwise provided in the applicable prospectus supplement, we may also discharge any and all of our obligations to holders of any series of debt securities at any time, which we refer to as defeasance. We may also be released from the obligations imposed by any covenants of any outstanding series of debt securities and provisions of the indenture, and we may omit to comply with those covenants without creating an event of default under the trust declaration, which we refer to as covenant defeasance. We may effect defeasance and covenant defeasance only if, among other things:

we irrevocably deposit with the trustee cash or government obligations denominated in the currency of the debt securities, as trust funds, in an amount certified to be enough to pay at maturity, or upon redemption, the principal (including any mandatory sinking fund payments) of, and any premium and interest on, all outstanding debt securities of the series; and

we deliver to the trustee an opinion of counsel from a nationally recognized law firm to the effect that the holders of the series of debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the defeasance or covenant defeasance and that

Table of Contents

defeasance or covenant defeasance will not otherwise alter the holders' U.S. federal income tax treatment of principal, and any premium and interest payments on, the series of debt securities.

In the case of a defeasance by us, the opinion we deliver must be based on a ruling of the Internal Revenue Service issued, or a change in U.S. federal income tax law occurring, after the date of the indenture, since such a result would not occur under the U.S. federal income tax laws in effect on that date.

Although we may discharge or decrease our obligations under the indenture as described in the two preceding paragraphs, we may not avoid, among other things, our duty to register the transfer or exchange of any series of debt securities, to replace any temporary, mutilated, destroyed, lost or stolen series of debt securities or to maintain an office or agency in respect of any series of debt securities.

Modification of the Indenture

The indenture provides that we and the trustee may enter into supplemental indentures without the consent of the holders of debt securities to, among other things:

evidence the assumption by a successor entity of our obligations;

add to our covenants for the benefit of the holders of debt securities, or to surrender any rights or power conferred upon us;

add any additional events of default;

cure any ambiguity or correct any inconsistency or defect in the indenture;

add to, change or eliminate any of the provisions of the indenture in a manner that will become effective only when there is no outstanding debt security which is entitled to the benefit of the provision as to which the modification would apply;

secure any debt securities;

establish the forms or terms of debt securities of any series;

evidence and provide for the acceptance of appointment by a successor trustee and add to or change any of the provisions of the indenture as is necessary for the administration of the trusts by more than one trustee;

modify, eliminate or add to the provisions of the indenture as shall be necessary to effect the qualification of the indenture under the Trust Indenture Act of 1939 or under any similar federal statute later enacted, and to add to the indenture such other provisions as may be expressly required by the Trust Indenture Act; and

make any other provisions with respect to matters or questions arising under the indenture that will not be inconsistent with any provision of the indenture as long as the new provisions do not adversely affect the interests of the holders of any outstanding debt securities of any series created prior to the modification.

The indenture also provides that we and the trustee may, with the consent of the holders of not less than a majority in aggregate principal amount of debt securities of each series of debt securities affected by such supplemental indenture then outstanding, add any provisions to, or change in any manner, eliminate or modify in any way the provisions of, the indenture or any supplemental indenture or modify in any manner the rights of the holders of the debt securities. We and the trustee may not, however, without the consent of the holder of each outstanding debt security affected thereby:

extend the final maturity of any debt security;

reduce the principal amount or premium, if any;

Table of Contents

reduce the rate or extend the time of payment of interest;

reduce the amount of the principal of any debt security issued with an original issue discount that is payable upon acceleration;

change the currency in which the principal, and any premium or interest, is payable;

impair the right to institute suit for the enforcement of any payment on any debt security when due;

if applicable, adversely affect the right of a holder to convert or exchange a debt security; or

reduce the percentage of holders of debt securities of any series whose consent is required for any modification of the indenture or for waivers of compliance with or defaults under the indenture with respect to debt securities of that series.

The indenture provides that the holders of not less than a majority in aggregate principal amount of the then outstanding debt securities of any series, by notice to the relevant trustee, may on behalf of the holders of the debt securities of that series waive any default and its consequences under the indenture except:

a default in the payment of, any premium and any interest on, or principal of, any such debt security held by a nonconsenting holder; or

a default in respect of a covenant or provision of the indenture that cannot be modified or amended without the consent of the holder of each outstanding debt security of each series affected.

Registered Global Securities and Book Entry System

The debt securities of a series may be issued in whole or in part in book-entry form and will be represented by one or more fully registered global securities. We will deposit any registered global securities with a depository or with a nominee for a depository identified in the applicable prospectus supplement and registered in the name of such depository or nominee. In such case, we will issue one or more registered global securities denominated in an amount equal to the aggregate principal amount of all of the debt securities of the series to be issued and represented by such registered global security or securities. This means that we will not issue certificates to each holder.

Unless and until it is exchanged in whole or in part for debt securities in definitive registered form, a registered global security may not be transferred except as a whole:

by the depository for the registered global security to its nominee;

by a nominee of the depository to the depository or another nominee of the depository; or

by the depository or its nominee to a successor of the depository or a nominee of the successor.

The prospectus supplement relating to a series of debt securities will describe the specific terms of the depository arrangement involving any portion of the series represented by a registered global security. We anticipate that the following provisions will apply to all depository arrangements for debt securities:

Edgar Filing: MoSys, Inc. - Form 424B5

ownership of beneficial interests in a registered global security will be limited to persons that have accounts with the depository for such registered global security, these persons being referred to as "participants," or persons that may hold interests through participants;

upon the issuance of a registered global security, the depository for the registered global security will credit, on its book-entry registration and transfer system, the participants' accounts with the

Table of Contents

respective principal amounts of the debt securities represented by the registered global security beneficially owned by the participants;

any dealers, underwriters, or agents participating in the distribution of the debt securities will designate the accounts to be credited; and

ownership of beneficial interest in the registered global security will be shown on, and the transfer of the ownership interest will be effected only through, records maintained by the depository for the registered global security for interests of participants, and on the records of participants for interests of persons holding through participants.

The laws of some states may require that specified purchasers of securities take physical delivery of the securities in definitive form. These laws may limit the ability of those persons to own, transfer or pledge beneficial interests in registered global securities.

So long as the depository for a registered global security, or its nominee, is the registered owner of the registered global security, the depository or such nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by the registered global security for all purposes under the indenture. Except as stated below, owners of beneficial interests in a registered global security:

will not be entitled to have the debt securities represented by a registered global security registered in their names;

will not receive or be entitled to receive physical delivery of the debt securities in the definitive form; and

will not be considered the owners or holders of the debt securities under the relevant indenture.

Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depository for the registered global security and, if the person is not a participant, on the procedures of a participant through which the person owns its interest, to exercise any rights of a holder under the indenture.

We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the indenture, the depository for the registered global security would authorize the participants holding the relevant beneficial interests to give or take the action, and the participants would authorize beneficial owners owning through the participants to give or take the action or would otherwise act upon the instructions of beneficial owners holding through them.

We will make payments of principal and premium, if any, and interest, if any, on debt securities represented by a registered global security registered in the name of a depository or its nominee to the depository or its nominee, as the case may be, as the registered owners of the registered global security. Neither we nor the trustee, or any other agent of ours or the trustee will be responsible or liable for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to the beneficial ownership interests.

We expect that the depository for any debt securities represented by a registered global security, upon receipt of any payments of principal and premium, if any, and interest, if any, in respect of the registered global security, will immediately credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the registered global security as shown on the records of the depository. We also expect that standing customer instructions and customary practices will govern payments by participants to owners of beneficial interests in the registered global security held through the participants, as is now the case with the securities held for the accounts of customers

Table of Contents

in bearer form or registered in "street name." We also expect that any of these payments will be the responsibility of the participants.

If the depository for any debt securities represented by a registered global security is at any time unwilling or unable to continue as depository or stops being a clearing agency registered under the Exchange Act, we will appoint an eligible successor depository. If we fail to appoint an eligible successor depository within 90 days, we will issue the debt securities in definitive form in exchange for the registered global security. In addition, we may at any time and in our sole discretion decide not to have any of the debt securities of a series represented by one or more registered global securities. In that event, we will issue debt securities of the series in a definitive form in exchange for all of the registered global securities representing the debt securities. The trustee will register any debt securities issued in definitive form in exchange for a registered global security in the name or names as the depository, based upon instructions from its participants, shall instruct the trustee.

We may also issue bearer debt securities of a series in the form of one or more global securities, referred to as "bearer global securities." We will deposit these securities with a depository identified in the prospectus supplement relating to the series. The prospectus supplement relating to a series of debt securities represented by a bearer global security will describe the applicable terms and procedures. These will include the specific terms of the depository arrangement and any specific procedures for the issuance of debt securities in definitive form in exchange for a bearer global security, in proportion to the series represented by a bearer global security.

If debt securities are issued only in the form of a global security, an investor should be aware of the following:

An investor cannot cause the debt securities to be registered in his or her name, and cannot obtain certificates for his or her interest in the debt securities, except in the special situations we describe below.

An investor will be an indirect holder and must look to his or her own bank or broker for payments on the debt securities and protection of his or her legal rights relating to the debt securities.

An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the debt securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective.

The depository's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security. We and the trustee have no responsibility for any aspect of the depository's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depository in any way.

DTC requires that those who purchase and sell interests in a global security deposited in its book-entry system use immediately available funds. Your broker or bank may also require you to use immediately available funds when purchasing or selling interests in a global security.

Financial institutions that participate in the depository's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the debt security. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Table of Contents

Payment and Paying Agent

Unless specified otherwise in a prospectus supplement, in the event certificated registered debt securities are issued, the holders of certificated registered debt securities will be able to receive payments of principal and of interest on their debt securities at the office of the paying agent. All payments of interest may be received at the offices of such paying agent upon presentation of certificated debt securities and all payments of principal may be received at such offices upon surrender of the debt securities. We also have the option of mailing checks or making wire transfers to the registered holders of the debt securities. Unless specified otherwise in a prospectus supplement, we will maintain a paying agent for the debt securities in the city of New York at all times that payments are to be made in respect of the debt securities and, if and so long as the debt securities remain outstanding.

Concerning the Trustee

The indenture provides that there may be more than one trustee under the indenture, each for one or more series of debt securities. If there are different trustees for different series of debt securities, each trustee will be a trustee of a trust under the indenture separate and apart from the trust administered by any other trustee under that indenture. Except as otherwise indicated in this prospectus or any prospectus supplement, any action permitted to be taken by a trustee may be taken by such trustee only on the one or more series of debt securities for which it is the trustee under the indenture. Any trustee under the indenture may resign or be removed from one or more series of debt securities. All payments of principal of, and any premium and interest on, and all registration, transfer, exchange, authentication and delivery of, the debt securities of a series will be effected by the trustee for that series at an office designated by the trustee in New York, New York.

The indenture provides that, except during the continuance of an event of default, the trustee will perform only such duties as are specifically set forth in the indenture. During the existence of an event of default, the trustee will exercise those rights and powers vested in it under the indenture and use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

If the trustee becomes a creditor of ours, the indenture places limitations on the right of the trustee to obtain payment of claims or to realize on property received in respect of any such claim as security or otherwise. The trustee may engage in other transactions. If it acquires any conflicting interest relating to any duties concerning the debt securities, however, it must eliminate the conflict or resign as trustee.

No Individual Liability of Incorporators, Stockholders, Officers or Directors

The indenture provides that no past, present or future director, officer, stockholder or employee of ours, any of our affiliates, or any successor corporation, in their capacity as such, shall have any individual liability for any of our obligations, covenants or agreements under the debt securities or the indenture.

Governing Law

The indenture and the debt securities will be governed by, and construed in accordance with, the laws of the State of New York.

Table of Contents

Description of Capital Stock

General

The following description of our capital stock and provisions of our certificate of incorporation and bylaws is a summary only and not a complete description.

Our authorized capital stock consists of 120,000,000 shares of common stock, par value \$0.01 per share, and 20,000,000 shares of preferred stock, par value \$0.01 per share.

Common Stock

As of August 1, 2014, 49,566,641 shares of our common stock were outstanding and held of record by 16 stockholders. Each holder of our common stock is entitled to

one vote per share on all matters submitted to a vote of the stockholders;

dividends as may be declared by our board of directors out of funds legally available for that purpose, subject to the rights of any preferred stock that may be outstanding; and

his, her or its pro rata share in any distribution of our assets after payment or providing for the payment of liabilities and the liquidation preference of any outstanding preferred stock in the event of liquidation.

Holders of common stock have no cumulative voting rights, redemption rights or preemptive rights to purchase or subscribe for any shares of our common stock or other securities. All of the outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future

Preferred Stock

We have designated 120,000 shares of our preferred stock as Series AA preferred stock for issuance pursuant to the exercise of rights under our rights plan, none of which are outstanding. For more information on the rights plan, see the discussion below. We have no current intention to issue any other shares of preferred stock.

Our board of directors has the authority, subject to any limitations prescribed by Delaware law, to issue shares of preferred stock in one or more series and to fix and determine the relative rights and preferences of the shares constituting any series to be established, without any further vote or action by the stockholders. Any shares of our preferred stock so issued may have priority over our common stock with respect to dividend, liquidation and other rights.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Although the issuance of preferred stock could provide us with flexibility in connection with possible acquisitions and other corporate purposes, under some circumstances, it could have the effect of delaying, deferring or preventing a change of control.

Our board of directors may authorize the issuance of our preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Although the issuance of our preferred stock could provide us with flexibility in connection with possible acquisitions and other corporate purposes, under some circumstances, it could have the effect of delaying, deferring or preventing a change of control.

The prospectus supplement will specify as to each issuance of preferred stock:

the maximum number of shares;

Table of Contents

the designation of the shares;

annual dividend rate, if any, whether the dividend rate is fixed or variable, the date dividends will accrue, the dividend payment dates and whether dividends will be cumulative;

the price and the terms and conditions for redemption, if any, including redemption at our option or at the option of the holders, including the time period for redemption, and any accumulated dividends or premiums;

the liquidation preference, if any, and any accumulated dividends upon the liquidation, dissolution or winding up of our affairs;

any sinking fund or similar provision, and, if so, the terms and provisions relating to the purpose and operation of the fund;

the terms and conditions, if any, for conversion or exchange of shares into or for any other class or classes of our capital stock or any series of any other class or classes, or into or for any other series of the same class, or any other securities or assets, including the price or the rate of conversion or exchange and the method, if any, of adjustment;

the voting rights; and

any or all other preferences and relative, participating, optional or other special rights, privileges or qualifications, limitations or restrictions.

Preferred stock will be fully paid and nonassessable upon issuance. The preferred stock or any series of preferred stock may be represented, in whole or in part, by one or more global certificates, which will represent an aggregate number of shares equal to that of the preferred stock represented by the global certificate.

Each global certificate will:

be registered in the name of a depository or a nominee of the depository identified in the prospectus supplement;

be deposited with such depository or nominee or a custodian for the depository; and

bear a legend regarding any restrictions on exchanges and registration of transfer and any other matters as may be provided for under the certificate of designations.

Antitakeover Effects of Provisions of Our Certificate of Incorporation and Bylaws and of Delaware Law.

Certain provisions of our charter documents and Delaware law could have an anti-takeover effect and could delay, discourage or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might otherwise result in a premium being paid over the market price of our common stock.

Certificate of Incorporation and Bylaws. Our certificate of incorporation provides that stockholders can take action only at a duly called annual or special meeting of the stockholders and not by written consent. At the same time, our bylaws provide that special meetings of stockholders may be called only by our chairman of the board, our chief executive officer, a majority of the total number of authorized directors or any individual holder of 25% of the outstanding shares of common stock. These provisions could delay consideration of a stockholder proposal until the next annual meeting.

Edgar Filing: MoSys, Inc. - Form 424B5

Our bylaws provide for an advance notice procedure for the nomination, other than by or at the direction of our board of directors, of candidates for election as directors, as well as for other stockholder proposals to be considered at annual meetings of stockholders. In addition, under our

Table of Contents

bylaws newly created directorships resulting from any increase in the number of directors or any vacancies in the board resulting from death, resignation, retirement, disqualification, removal from office or other cause during a director's term in office can be filled by the vote of the remaining directors in office, and the board is expressly authorized to amend the bylaws without stockholder consent. These provisions may preclude a third party from removing incumbent directors and can control of our board of directors. Accordingly, these provisions could discourage a third party from initiating a proxy contest, making a tender offer or otherwise attempting to gain control of our company.

Delaware Takeover Statute. Section 203 of the Delaware General Corporation Law, or DGCL, generally prohibits a publicly-held Delaware corporation from engaging in an acquisition, asset sale or other transaction resulting in a financial benefit to any person who, together with affiliates and associates, owns, or within three years did own, 15.0% or more of a corporation's voting stock. The prohibition continues for a period of three years after the date of the transaction in which the person becomes an owner of 15.0% or more of the corporation's voting stock, unless the business combination is approved in a prescribed manner. The statute could prohibit, delay, defer or prevent a change in control with respect to our company.

Antitakeover Effects of Our Rights Plan

We have adopted a rights plan that is intended to protect and maximize the value of our outstanding equity interests in the event of an unsolicited attempt by an acquiror to take over our company in a manner or on terms not approved by the board of directors. The rights plan provides this protection by imposing economic disincentives that are triggered by specified acquisitions of or offers for our common stock, as detailed below.

Under the rights plan, we will issue as a dividend on each outstanding share of common stock one right to purchase one one-thousandth of a share of our Series AA preferred stock, \$0.01 par value per share, or the preferred shares, at a price of \$48.00 per one one-thousandth of a preferred share, subject to adjustment.

The preferred shares will have the following rights:

preferred shares will not be redeemable;

each one one-thousandth of a preferred share will be entitled to a minimum preferential dividend payment equal to the dividend declared on each share of common stock;

in the event of liquidation, the holders of the preferred shares will be entitled to a preferential liquidation payment per each one one-thousandth of a preferred share equal to the greater of (1) the payment made per share of common stock and (2) \$0.048, plus accrued and unpaid dividends;

each one one-thousandth of a preferred share will have one vote, voting together with the common stock;

in the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, each one one-thousandth of a preferred share will be entitled to receive an amount equal to the amount received per share of common stock; and

the rights of the preferred shares are protected by customary antidilution provisions.

Because of the nature of the preferred shares' dividend, liquidation and voting rights, the value of the one one-thousandth interest in a preferred share purchasable upon exercise of each right should approximate the value of one share of common stock.

Table of Contents

The rights will not be exercisable until the distribution date, which will be defined as the date that is the earlier of:

10 days after a public announcement that a person or group of affiliated or associated persons have acquired beneficial ownership of 15% or more of the outstanding shares of common stock, other than a person or such a group that obtains the prior written approval of the board of directors or holders of grandfathered stock, as defined below, which person or group is referred to as an acquiring person; or

10 business days, or such later date as may be determined by action of the board of directors prior to such time as any person or group becomes an acquiring person, after the commencement of, or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in the beneficial ownership by a person or group of 15% or more of such outstanding shares of common stock, unless our board of directors has approved the offer.

Certain pre-initial public offering holders of grandfathered stock are subject to higher ownership thresholds prior to triggering a distribution date through their ownership of shares of our common stock. Their share ownership must reach 20% rather than 15% as set forth above, before a distribution date would be deemed to occur. Under the plan, the firm of Ingalls & Snyder, or I&S, and its managed account beneficial owners collectively are not deemed to be an acquiring person as long as none of their shares are held with a purpose or effect of changing or influencing control our company. This exclusion applies only to shares of common stock for which there is only shared dispositive power and I&S has only non-discretionary voting power.

The rights agreement provides that, until the distribution date, the rights will be transferred only with the shares of common stock, including the shares of common stock sold in the offering. Until the distribution date or earlier redemption or expiration of the rights, new common stock certificates issued after the record date or upon transfer or new issuance of shares of common stock will contain a notation incorporating the rights agreement by reference and the surrender for transfer of any certificates for shares of common stock outstanding as of the record date, even without such notation, will also constitute the transfer of the rights associated with the shares of common stock represented by such certificate.

In the event the rights become exercisable, the plan requires that proper provision shall be made so that each holder of a right will thereafter have the right to receive upon exercise that number of shares of our common stock having a market value of two times the exercise price of the right, and rights beneficially owned by an acquiring person will automatically become void. In the event there are insufficient authorized shares of common stock, we may substitute consideration such as cash, property, or other securities of our company. The plan also provides that, if we are acquired in a merger or other business combination transaction or 50% or more of our consolidated assets or earning power are sold after the distribution date, proper provision will be made so that each holder of a right will thereafter have the right to receive, upon the exercise of the right at the then current exercise price of the right, that number of shares of common stock of the acquiring company which at the time of such transaction will have a market value of two times the exercise price of the right.

The plan also includes provisions that permit our board of directors to:

exchange the rights, other than rights owned by an acquiring person which have become void, in whole or in part, at an exchange ratio of one share of common stock, or one one-thousandth of a preferred share, per right, subject to adjustment at any time after a person becomes an acquiring person and before the acquiring person acquires 50% or more of the outstanding shares of common stock;

Table of Contents

redeem the rights, in whole but not in part, at a price of \$0.01 per right at any time prior to the date a person or group becomes an acquiring person;

reinstate the rights of redemption, if prior to completion of certain recapitalizations, mergers or other business combinations, an acquiring person reduces its beneficial ownership to less than 10% of the outstanding shares of common stock in transactions that do not involve us; and

amend the terms of the rights without the consent of the holders of the rights under certain circumstances, except that once a person or group becomes an acquiring person, no such amendment may adversely affect the interests of the holders of the rights.

Until a right is exercised, the holder of a right will not, by reason of being such a holder, have rights as a stockholder of our company, including, without limitation, the right to vote or to receive dividends. The distribution of the rights will not be taxable to our stockholders, but stockholders might, depending on the circumstances, recognize taxable income if the rights become exercisable or upon the commencement of certain events thereafter.

The rights expire on November 10, 2020, which is the tenth anniversary of the adoption of the plan, unless the rights are earlier redeemed or exchanged by us.

Transfer Agent

The transfer agent and registrar for our common stock is Wells Fargo Bank, National Association. We plan to retain the same transfer agent and registrar for any series of our preferred stock.

Description of Warrants

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and any related warrant agreements and warrant certificates. While the terms we have summarized below will apply generally to any warrants we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement, which may differ from the terms we describe below.

General

We may issue, together with other securities or separately, warrants to purchase our preferred stock, common stock or other securities. We may issue the warrants directly to the purchasers of the warrants or under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, all as set forth in the applicable prospectus supplement. A warrant agent will act solely as our agent in connection with the warrants of the series being offered and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

The prospectus supplement will describe the following terms, where applicable, of warrants that we may offer:

the title of the warrants;

the designation, amount and terms of the securities for which the warrants are exercisable and the procedures and conditions relating to the exercise of such warrants;

the designation and terms of the other securities, if any, with which the warrants are to be issued and the number of warrants issued with each such security;

the price or prices at which the warrants will be issued;

the aggregate number of warrants;

Table of Contents

any provisions for adjustment of the number or amount of securities receivable upon exercise of the warrants or the exercise price of the warrants;

the price or prices at which the securities purchasable upon exercise of the warrants may be purchased, including provisions for adjustment of the exercise price of the warrant;

if applicable, the date on and after which the warrants and the securities purchasable upon exercise of the warrants will be separately transferable;

if applicable, a discussion of the material U.S. federal income tax considerations applicable to the exercise of the warrants;

any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants;

the date on which the right to exercise the warrants shall commence, and the date on which the right shall expire; and

the maximum or minimum number of warrants which may be exercised at any time.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder thereof to purchase for cash the amount of debt securities or number of shares of preferred stock or common stock at the exercise price as will in each case be set forth in, or be determinable as set forth in, the applicable prospectus supplement. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Warrants may be exercised as set forth in the applicable prospectus supplement relating to the warrants offered thereby. Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, forward the purchased securities. If less than all of the warrants represented by the warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

Enforceability of Rights of Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, that holder's warrants.

Table of Contents

Plan of Distribution

We may sell the securities in and outside the United States through underwriters or dealers, directly to purchasers, including our affiliates, through agents, or through a combination of any of these methods. The prospectus supplement will include the following information:

- the terms of the offering;
- the names of any underwriters, dealers or agents;
- the name or names of any managing underwriter or underwriters;
- the purchase price of the securities;
- the net proceeds from the sale of the securities;
- any delayed delivery arrangements;
- any underwriting discounts, commissions and other items constituting underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers;
- any commissions paid to agents; and
- any market or securities exchange on which the securities offered in the prospectus supplement may be listed.

Sale through Underwriters or Dealers

If underwriters are used in the sale of any of these securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Underwriters may offer securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless we inform you otherwise in any prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions, and the underwriters will be obligated to purchase all the offered securities if they purchase any of them. The underwriters may change from time to time any public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

During and after an offering through underwriters, the underwriters may purchase and sell the securities in the open market. These transactions may include over-allotment and stabilizing transactions and purchases to cover syndicate short positions created in connection with the offering. The underwriters may also impose a penalty bid, which means that selling concessions allowed to syndicate members or other broker-dealers for the offered securities sold for their account may be reclaimed by the syndicate if the offered securities are repurchased by the syndicate in stabilizing or covering transactions. These activities may stabilize, maintain or otherwise affect the market price of the offered securities, which may be higher than the price that might otherwise prevail in the open market. If commenced, the underwriters may discontinue these activities at any time.

Edgar Filing: MoSys, Inc. - Form 424B5

Some or all of the securities that we offer through this prospectus may be new issues of securities with no established trading market. Any underwriters to whom we sell these securities for public offering and sale may make a market in those securities, but they will not be obligated to and they may discontinue any market making at any time without notice. Accordingly, we cannot assure you of the liquidity of, or continued trading markets for, any securities that we offer.

Table of Contents

If dealers are used in the sale of securities, we will sell the securities to them as principals. They may then resell those securities to the public at varying prices determined by the dealers at the time of resale. We will include in the prospectus supplement the names of the dealers and the terms of the transaction.

Direct Sales and Sales through Agents

We may sell the securities directly, and not through underwriters or agents. We may also sell the securities through agents designated from time to time. In the prospectus supplement, we will name any agent involved in the offer or sale of the offered securities, and we will describe any commissions payable to the agent. Unless we inform you otherwise in the prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended, or the Securities Act, with respect to any sale of those securities. We will describe the terms of any such sales in the prospectus supplement.

Delayed Delivery Contracts

If we so indicate in the prospectus supplement, we may authorize agents, underwriters or dealers to solicit offers from certain types of institutions to purchase securities from us at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. The contracts would be subject only to those conditions described in the prospectus supplement. The prospectus supplement will describe the commission payable for solicitation of those contracts.

Issuance of Common Stock Pursuant to Certain Warrant Exercises

We may also offer and sell our common stock upon the exercise of warrants issued by us, pursuant to the exemption from the registration requirements provided by Section 3(a)(10) of the Securities Act, in connection with a settlement of litigation against us. No underwriter would be used in connection with such offer and sale of common stock or the exercise of such warrants. We would issue the shares of our common stock directly to the holders of such warrants, upon the exercise of such warrants, from time to time. We will describe the terms of any such offers, sales and warrants in a prospectus supplement.

General Information

We may have agreements with the agents, dealers and underwriters to indemnify them against certain civil liabilities, including liabilities under the Securities Act, or to contribute with respect to payments that the agents, dealers or underwriters may be required to make. Agents, dealers and underwriters may be customers of, engage in transactions with or perform services for us in the ordinary course of their businesses.

Experts

The consolidated financial statements and financial statement schedule of MoSys, Inc. as of December 31, 2013 and 2012 and for each of the three years in the period ended December 31, 2013, and the effectiveness of control over financial reporting, incorporated in this Registration Statement on Form S-3 by reference to the Annual Report on Form 10-K for the year ended December 31, 2013, have been so incorporated in reliance on the reports of Burr Pilger Mayer, Inc., an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Table of Contents

Legal Matters

The validity of the issuance of shares of any securities offered hereby will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, Palo Alto, California.

Where You Can Find More Information

We file annual, quarterly and special reports and other information with the SEC. In addition, we have filed with the SEC a Registration Statement on Form S-3, of which this prospectus is a part, under the Securities Act, with respect to the shares of common stock offered hereby. You may read and obtain copies at prescribed rates of any document that we file with the SEC at its Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. Our SEC filings are also available to you free of charge at the SEC's web site at <http://www.sec.gov>, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Our common stock is traded on the Global Market of the NASDAQ Stock Market. Material filed by us can be inspected at the offices of the Financial Industry Regulatory Authority, 1735 K Street, N.W., Washington, D.C. 20006.

Incorporation by Reference

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information that is either incorporated by reference, or contained in, this prospectus and will be considered a part of this prospectus from the date those documents are filed. We incorporate by reference the documents listed below:

- (a) the section entitled "Description of Capital Stock" in the Prospectus contained in Amendment No. 7 to the Registration Statement on Form S-1 we filed with the SEC on June 26, 2001 (Registration No. 333-43122), in the Form 8-A/A we filed with the SEC on November 12, 2010 (Commission File No. 000-32929), and in the Form 8-A/A we filed with the SEC on May 24, 2012 (Commission File No. 000-32929);
- (b) our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the SEC on March 14, 2014;
- (c) our Quarterly Report on Form 10-Q for the three months ended March 31, 2014, filed with the SEC on May 12, 2014;
- (d) our definitive proxy statement on Schedule 14A filed with the SEC on April 29, 2014;
- (e) our Current Report on Form 8-K filed with the SEC on June 4, 2014; and
- (f) our Quarterly Report on Form 10-Q for the three and six months ended June 30, 2014, filed with the SEC on August 8, 2014.

In addition, all documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of filing the registration statement that includes this prospectus and prior to the filing of a post-effective amendment to the registration statement containing this prospectus, which indicates that all securities offered have been sold or which deregisters all of such securities then remaining unsold, shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the respective dates of filing of such documents. However, we are not incorporating by reference, in each case, any information or documents that are deemed to be furnished and not filed in accordance with SEC rules.

Edgar Filing: MoSys, Inc. - Form 424B5

Table of Contents

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

MoSys, Inc.
3301 Olcott Street
Santa Clara, CA 95054
(408) 418-7500
Attention: Chief Financial Officer

We will not, however, send exhibits to these documents unless the exhibits are specifically incorporated by reference in those documents or deemed to be incorporated by reference in this prospectus. In addition, you may obtain a copy of these filings from the SEC as described above in the section entitled "Where You Can Find More Information."