

MoSys, Inc.
Form 424B5
May 13, 2013

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Filed Pursuant to Rule 424(b)(5)
Registration No.: 333-170327

SUBJECT TO COMPLETION, DATED MAY 13, 2013

The information in this preliminary prospectus is not complete and may be changed. A registration statement relating to these securities has been filed and declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

**Preliminary Prospectus Supplement
(To Prospectus dated November 3, 2010)**

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 _____, 2013 was \$ _____ per share. Our chief executive officer has indicated that he intends to purchase approximately \$1 million 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-4 of this prospectus supplement.

Per Share Total

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| | | |
|----------------------------------|----|----|
| 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 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.

Roth Capital Partners

The Benchmark Company

Feltl and Company

The date of this prospectus is _____, 2013

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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.

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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

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 equipment manufacturers, or OEMs. We have developed a family of ICs, called Bandwidth Engine, that combines our proprietary 1T-SRAM high-density embedded memory and high-speed 10 Gigabits per second, or Gbps, serial interface, or I/O, with our intelligent access technology and a highly efficient interface protocol. We are now accepting sample orders for our Bandwidth Engine 2 Burst product.

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. The first applications for our Bandwidth Engine IC are in networking and communications systems to enable next generation, high density 80 Gbps and higher solutions. 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, such as the Bandwidth Engine, and are dedicating substantially all of our research and development, marketing and sales budget to these IC products. In March 2013, we announced another IC product under the "LineSpeed Gearbox" product name. LineSpeed Gearbox ICs are non-memory based serial I/O devices with gearbox functionality to convert lanes of data received on line cards into different configurations.

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

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THE OFFERING

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| Common stock offered by MoSys, Inc. | shares Our chief executive officer has indicated that he intends to purchase approximately \$1 million 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-4 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 40,522,446 shares outstanding as of April 30, 2013. This number does not include: | |

6,294,000 shares of common stock issuable upon exercise of outstanding exercisable stock options with a weighted average exercise price of approximately \$4.32 per share;

3,509,000 shares of common stock issuable upon exercise of outstanding stock options that are not exercisable;

1,613,000 shares of common stock available for future issuance under our stock option plans; and

1,189,000 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.

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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, 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 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.

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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 \$5.6 million, excluding the one-time gain on sale of assets of \$0.6 million, for the three months ended March 31, 2013 and ended the period with an accumulated deficit of \$98.0 million. 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 and ended the period with an accumulated deficit of \$93.0 million. We recorded an operating loss of \$24.3 million, excluding the one-time gain on sale of patents of \$35.6 million, for the year ended December 31, 2011 and ended the period with an accumulated deficit of \$65.4 million. In addition, we recorded an operating loss of \$23.2 million for the year ended December 31, 2010. 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 semiconductor market's acceptance of our Bandwidth Engine ICs.

The future prospects of our business depend on the adoption and acceptance by our target markets of our Bandwidth Engine 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 primary focus is on obtaining design wins, or winning competitive bids, in which customers select our IC products to design into their systems. 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

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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.

We utilize a limited number of suppliers to manufacture our integrated circuits, and, if any of these suppliers fail to support future versions of our technology, it will be difficult for us to develop and introduce new products and our business may not grow.

We are a fabless semiconductor company and use a limited number of suppliers to manufacture our integrated circuits, and certain of these suppliers, such as our foundry, TSMC, are sole sources. We are dependent upon supply from TSMC and other suppliers to produce our integrated circuits. Furthermore, we are dependent on TSMC to support the production of wafers for future versions of our integrated circuits, and 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 integrated circuits, we would need to identify a new foundry. Even if TSMC alters its production processes to produce wafers for future versions of our integrated circuits, we may experience lower than anticipated manufacturing yields and device reliability problems due to the introduction of changes in production processes. Our inability to obtain supply for our existing and future integrated circuit products or to obtain the support of third party foundries for the development and manufacture of our products at smaller process geometries could materially and adversely affect our ability to achieve our strategic product development objectives and limit our prospects for future growth.

In addition, we do not have long-term supply contracts with TSMC or any of our other manufacturing suppliers, and, therefore, such suppliers are not obligated to manufacture products for us or meet our supply requirements. In addition, such suppliers are under no obligation to meet our future design specifications, except as may be provided in a particular purchase order. If we are unable to obtain an adequate supply of our current or future products from our suppliers or find alternative sources in a timely manner, we will be unable to fulfill our customer orders and our operating results will be harmed.

Because the manufacturing of integrated circuits is extremely complex, the process of qualifying a new foundry and/or other suppliers 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 may not achieve the anticipated benefits of becoming a fabless semiconductor company by developing and bringing to market the Bandwidth Engine IC product line.

In 2010, we expanded our business model to become a fabless semiconductor company through the development of a product line of ICs called the Bandwidth Engine. Our goal is to increase our total available market by creating high-performance ICs for networking systems, using our proprietary technology and design expertise. This development effort has required that we add significant 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 Bandwidth Engine ICs to 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;

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

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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 our IC products to market or if customer adoption of our products is delayed, we may need to raise additional capital to support the product development efforts and fund our working capital needs.

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 communications systems 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.

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

Bandwidth Engine 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 revenue from our selling efforts may be substantially delayed, our ability to forecast our future revenue may be more limited and our revenue may fluctuate significantly from quarter to quarter. We cannot provide any assurances that our efforts to build a strong and profitable business based on the Bandwidth Engine ICs will succeed. If these efforts are not successful, in light of the substantial

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resources that we have invested, our future operating results and cash flows could be materially adversely affected.

We expect our licensing and royalty revenues to decrease compared with our historical results, and we do not expect revenues from our IC products to 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 2012 and the first three months of 2013 declined when compared with prior years. We do not expect to generate sufficient revenues from our IC products to approximate the level of our historical IP revenues and allow us to achieve profitability in 2013. As a result, our operating results, cash flows and financial condition for 2013 are likely to be adversely affected.

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.

We are relying on the receipt of future royalties to provide working capital to partially fund our investment in our IC products. 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 do not expect our royalty revenue to grow in future periods. If we are unable to generate as much royalty revenue in the future as we believe will be necessary to partially fund our investment in our IC products, we may need to raise capital from other sources.

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 three months ended March 31, 2013, our four largest customers represented 33%, 14%, 13% and 11% of total revenue, respectively. For the year ended December 31, 2012, our three largest customers represented 28%, 26%, and 12% of total revenue, respectively. For the year ended December 31, 2011, our three largest customers represented 23%, 17% and 12% of total revenue respectively. For the year ended December 31, 2010, our three

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largest customers represented 23%, 18% and 15% of total revenue, respectively. We expect that a relatively small number of licensees will continue to account for a substantial portion of our revenue for the foreseeable future.

Our royalty revenue also has been highly concentrated among a few licensees, and we expect this trend to continue for the foreseeable future. In particular, a substantial portion of our licensing and royalty revenue in 2012, 2011 and 2010 has come from the license fees and royalties for integrated circuits supplied by one integrated device manufacturer, or IDM, for Nintendo® gaming devices that incorporate our 1T-SRAM technology. Royalties earned for the sale of Nintendo gaming devices from this customer represented 9%, 11%, 16% and 22% of total revenue in first three months of 2013, and fiscal years 2012, 2011 and 2010, respectively. In 2012, Nintendo introduced a new gaming system, which does not incorporate our technology, which will cause a reduction in royalties we receive related to the existing gaming devices.

As a result of this revenue concentration, our results of operations could be impaired 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 March 31, 2013, two customers represented 100% of total trade receivables. As of December 31, 2012, three customers represented 100% 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.

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

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, 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.

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

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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 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 expense and costs associated with customer support, 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 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 Bandwidth Engine 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.

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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 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 costs may increase substantially if the wafer foundries and assembly and test vendors that supply and test our products do not achieve satisfactory product yields, reliability or quality.

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

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.

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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 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, 2012, we held approximately 70 patents in the United States, and approximately 35 corresponding foreign patents, which expire at

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various times from 2013 to 2031. In addition, as of December 31, 2012, we had approximately 80 patent applications pending worldwide. We cannot be sure that any patents will issue 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 license agreements include provisions waiving implied warranties regarding our technology and limiting our liability to our licensees. We cannot be certain, however, that the waivers or limitations of liability contained in our license contracts 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 successfully transition our business model from IP licensing to IC sales, 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.

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;

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

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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.

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. In December 2011, we sold 43 United States patents and 30 related foreign patents in exchange for \$35 million in cash. In December 2010, we completed an equity offering and issued approximately 5,000,000 shares of our common stock for approximately \$20 million in net proceeds. Although we believe that we have access to capital sufficient to satisfy our working capital requirements for the foreseeable future, we believe that we 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;

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.

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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 March 31, 2013, 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

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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.

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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.

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Table of Contents**CAPITALIZATION**

The following table sets forth our capitalization as of March 31, 2013 on an actual basis and on an as adjusted basis after giving effect to the sale by us of the _____ 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" and our financial statements and the related notes included in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2013, which is incorporated by reference in this prospectus supplement and the accompanying prospectus. See "Incorporation by Reference" and "Where You Can Find More Information."

| | As of March 31, 2013 | |
|---|-----------------------------|--|
| | Actual | As Adjusted for this Offering |
| | (in thousands) | |
| Cash and cash equivalents | \$ 5,279 | \$ |
| Short-term investments | \$ 25,180 | \$ |
| Long-term liabilities | \$ 185 | |
| 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; 40,464 shares (actual) and shares (as adjusted) issued and outstanding | \$ 405 | \$ |
| Additional paid-in capital | \$ 159,070 | \$ |
| Accumulated other comprehensive income | \$ 15 | \$ |
| Accumulated deficit | \$ (98,010) | \$ |
| Total stockholders' equity | \$ 61,480 | \$ |

The number of shares of our common stock to be outstanding after this offering is based upon 40,463,977 shares outstanding as of March 31, 2013. This number does not include:

6,253,000 shares of common stock issuable upon exercise of outstanding exercisable stock options with a weighted average exercise price of approximately \$4.34 per share;

3,569,000 shares of common stock issuable upon exercise of outstanding stock options that are not exercisable;

1,682,000 shares of common stock available for future issuance under our stock option plans; and

1,189,000 shares of common stock available for sale under our employee stock purchase plan.

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DILUTION

Our unaudited net tangible book value as of March 31, 2013 was \$35.9 million, or \$0.89 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 March 31, 2013 of 40,463,977.

Our unaudited net tangible book value at March 31, 2013, 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 March 31, 2013 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 March 31, 2013 | \$0.89 |
| 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 March 31, 2013:

6,253,000 shares of common stock issuable upon exercise of outstanding exercisable stock options with a weighted average exercise price of approximately \$4.34 per share;

3,569,000 shares of common stock issuable upon exercise of outstanding stock options that are not exercisable;

1,682,000 shares of common stock available for future issuance under our stock option plans; and

1,189,000 shares of common stock available for sale under our employee stock purchase plan.

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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 April 30, 2013, 40,522,446 shares of our common stock were outstanding and held of record by 17 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.

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.

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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 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

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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.

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.

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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 several 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, LLC | |
| Feltl and Company, Inc. | |

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 has indicated that he intends to purchase approximately \$1 million 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 6.0% 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, Acme Strategy LLC an aggregate of \$50,000 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

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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.

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 and (ii) transfers of securities to one or more trusts for bona fide estate planning purposes. Each officer and director shall be immediately and automatically released from all restrictions and

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

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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 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

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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.

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LEGAL MATTERS

The validity of the issuance of shares of common stock offered hereby will be passed upon for us by Bingham McCutchen LLP, Palo Alto, California. K&L Gates LLP, Los Angeles, California, is counsel to Roth Capital Partners, LLC in connection with this offering.

EXPERTS

The consolidated financial statements of MoSys, Inc. as of December 31, 2012 and 2011 and for each of the three years in the period ended December 31, 2012, incorporated in this Registration Statement on Form S-3 by reference to MoSys, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012, 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, 2012, filed with the SEC on March 12, 2013;
- (b) our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2013, filed with the SEC on May 3, 2013;
- (c) our definitive proxy statement on Schedule 14A filed with the SEC on April 15, 2013;
- (d) our Current Report on Form 8-K filed with the SEC on January 22, 2013; and
- (e) 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.

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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."

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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 4.

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.

The date of this prospectus is November 3, 2010.

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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.

About This Prospectus

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, 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 design, develop, market and license embedded memory intellectual property, or IP, used by the semiconductor industry and electronic product manufacturers. We have developed a patented semiconductor memory technology, called 1T-SRAM, which offers a combination of high density, low power consumption and high-speed at performance and cost levels that other available memory technologies do not match. We license this technology to companies that incorporate, or embed, memory on complex integrated circuits, or ICs, such as system-on-chips, or SoCs.

Our innovative 1T-SRAM technologies provide major advantages over traditional SRAM in density, power consumption and cost, making it more economical for designers to incorporate large amounts of embedded memory in their designs. In addition, our 1T-SRAM technologies offer all the benefits of traditional SRAM, such as high-speed, simple interface and ease of manufacturability. Our 1T-SRAM technologies can achieve these advantages while utilizing standard logic manufacturing processes and providing the simple, standard SRAM interface that designers are accustomed to.

We also design, develop, market and license high-speed parallel and serial interface, or I/O, IP used by the semiconductor industry and electronic product manufacturers. Interface IP includes physical layer circuitry that allows ICs to communicate with each other or to discrete memory devices in networking, storage, computer and consumer devices. We support serial I/O technologies such as 10G KR, XAUI, PCI Express and SATA, as well as parallel interfaces like DDR3.

In February 2010, we announced the commencement of a new product initiative to develop a family of IC products under the "Bandwidth Engine" product name. The Bandwidth Engine will combine our 1T-SRAM high-density embedded memory with our high-speed 10 Gigabits per second serial communication I/O technology and will initially be marketed to networking systems companies. The Bandwidth Engine is being designed to increase system performance by using a serial I/O to increase the accesses per second between the processor and memory component in networking systems.

We generate revenue from the licensing of our memory and I/O technology, and our customers pay us fees for licensing, non-recurring engineering services, royalties, and maintenance and support. We offer our memory and I/O technology 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 license our technology to semiconductor companies who incorporate our technology into ICs that they sell to their customers. We also sell to system companies that design application-specific integrated circuits. In addition, we engage in joint marketing activities with foundries, other IP companies and design companies to promote our technology to a wide base of customers.

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, business 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.

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, which may be senior debt securities or subordinated debt securities, 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 will be either senior debt securities or subordinated debt securities. We will issue the senior debt securities under a senior indenture between us and a trustee. We will issue the subordinated debt securities under a subordinated indenture between us and the same or another trustee. The senior indenture and the subordinated indenture are collectively referred to in this prospectus as the indenture, and each of the trustee under the senior indenture and the trustee under the subordinated indenture are referred to in this prospectus as the trustee. Any debt securities issued by us may be guaranteed by one or more of our subsidiaries. Unless otherwise specified in a prospectus supplement the debt securities will be direct unsecured obligations of MoSys.

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 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 issue will rank equally with all other unsecured and unsubordinated indebtedness of us. 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 that do not guarantee the debt securities, and the claims of creditors of those subsidiaries, including trade creditors, will have priority as to the assets and cash flows of those subsidiaries.

Any debt securities proposed to be sold under this prospectus and the attached prospectus supplement ("offered debt securities") and any debt securities issuable upon conversion or exchange of other offered securities ("underlying debt securities"), as well as other unsecured debt securities, may be issued under the indenture in one or more series.

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

the title of the debt securities and whether the debt securities will be senior debt securities or subordinated debt securities of MoSys;

the total principal amount of the debt securities and any limit on the total principal amount of debt securities of the series;

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

if not the entire principal amount of the debt securities, the portion of the principal amount payable upon acceleration of the maturity of the debt securities or how this portion will be determined;

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the date or dates, or how the date or dates will be determined or extended, when the principal of the debt securities will be payable;

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;

any optional redemption provisions;

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

if other than U.S. dollars, the currency or currencies of the debt securities;

whether the amount of payments of principal, premium or interest, if any, on the debt securities will be determined with reference to an index, formula or other method, which could be based on one or more currencies, commodities, equity indices or other indices, and how these amounts will be determined;

the place or places, if any, other than, or in addition to, the city of New York, of payment, transfer, conversion and/or exchange of the debt securities;

if the denominations in which time offered debt securities will be issued are other than denominations of \$1,000 or any integral multiple of \$1,000;

the applicability of defeasance provisions of the indenture and any provisions in modification of, in addition to, or in lieu of, any of these provisions;

any provisions granting special rights to the holders of the debt securities upon the occurrence of specified events;

any changes or additions to the events of default or covenants contained in the indenture;

whether the debt securities will be convertible into or exchangeable for any other securities and the applicable terms and conditions of conversion or exchange;

the terms of any guarantees by any of our subsidiaries;

subordination provisions, if any, that will apply, to the extent different from those set forth below;

the form of note or other instrument representing the debt if not issued in book entry form; and

any other terms of the debt securities.

Covenants

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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

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.

Provisions Relating Only to the Senior Debt Securities

The senior debt securities will rank equally in right of payment with all of our other senior and unsubordinated debt and senior in right of payment to any of our subordinated debt, including the subordinated debt securities. The senior debt securities will be effectively subordinated to all of our secured debt and to all debt, including trade debt, of our subsidiaries, except as to subsidiaries that guaranty the debt. We will disclose the amount of our secured debt in the prospectus supplement.

Provisions Relating Only to the Subordinated Debt Securities

The subordinated debt securities will rank junior in right of payment to all of our senior indebtedness. Senior indebtedness will be defined to include all notes or other evidences of debt not expressed to be subordinate or junior in right of payment to any of our other debt. The debt will be structurally subordinated to all debt, including trade debt, of our subsidiaries, except as to subsidiaries that guaranty the debt.

If the offered securities are subordinated debt securities, the supplemental indenture may provide that no cash payment of principal, interest and any premium on the subordinated debt securities may be made:

if we fail to pay when due any amounts on any senior indebtedness;

if our property or we are involved in any voluntary or involuntary liquidation or bankruptcy; and

in other instances specified in the supplemental indenture.

Conversion or Exchange Rights

If any series of our debt securities are convertible or exchangeable, the applicable prospectus supplement will specify:

the type of securities into which it may be converted or exchanged;

the conversion price or exchange ratio, or its method of calculation; and

how the conversion price or exchange ratio may be adjusted if our debt securities are redeemed.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, the following will be events of default with respect to any series of debt securities or guaranties:

default for 30 days in the payment when due of interest on the debt securities;

default in payment when due of the principal of or any premium on the debt securities;

default in the performance of or breach of various covenants after applicable notice and/or grace period; and

various events of bankruptcy or insolvency with respect to us.

The applicable prospectus supplement will describe any additional events of default.

If an event of default occurs with respect to debt securities of a series then outstanding and is continuing, then the trustee or the holders of not less than 25% in principal amount of the debt securities of that series then outstanding, by a notice in writing to MoSys (and to the trustee, if given by the holders), may, and the trustee at the request of such holders shall, declare the principal amount (or, if the debt securities of that series are original issue discount securities, such portion of the principal amount as may be specified in the terms of that series) of, premium, if any, and accrued interest on all of the debt securities of that series to be due and payable immediately, and the same (or specified portion thereof) shall become immediately due and payable. A declaration of default under the indenture or under other payment obligations could give rise to cross-defaults and acceleration with respect to the debt securities or such other payment obligations.

At any time after a declaration of acceleration with respect to debt securities of any series (or of all series, as the case may be) has been made and before a judgment or decree for payment of the money due has been obtained by the trustee as provided in the indenture, the holders of a majority in principal amount of the debt securities of that series (or of all series, as the case may be) then outstanding, by written notice to MoSys and the trustee, may rescind such declaration and its consequences under the circumstances specified in the applicable debenture.

The indenture will provide that no such rescission shall affect any subsequent default or impair any right consequent thereon.

With respect to the debt securities of any series, the holders of not less than a majority in principal amount of the debt securities of such series then outstanding shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, *provided* that:

such direction shall not be in conflict with any rule of law or with the indenture;

the trustee may take any other action deemed proper by the trustee which is not inconsistent with such direction; and

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the trustee need not take any action which might involve it in personal liability or be unjustly prejudicial to the holders of debt securities of such series not consenting.

No holder of any debt security of any series or any related coupons shall have any right to institute any proceeding, judicial or otherwise, with respect to the indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

the holder has previously given written notice to the trustee of a continuing event of default with respect to the debt securities of that series;

the holders of not less than 25% in principal amount of the debt securities of that series then outstanding shall have made written request to the trustee to institute proceedings in respect of the event of default in its own name as trustee under the indenture;

such holder or holders have offered to the trustee indemnity reasonably satisfactory to the trustee against the costs, expenses and liabilities to be incurred in compliance with such request;

the trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

no direction inconsistent with such written request has been given to the trustee during such 60-day period by the holders of a majority or more in principal amount of the debt securities of that series then outstanding.

However, no holder of a debt security has the right under the indenture to affect, disturb or prejudice the rights of any other holders of debt securities of the same series, or to obtain or to seek to obtain priority or preference over any other of such holders or to enforce any right under the indenture, except in the manner provided in the indenture and for the equal and ratable benefit of all holders of debt securities of the same series.

Every year we will be required to deliver to the trustee a certificate as to our performance of our obligations under the indenture and as to any defaults.

Mergers, Consolidations and Certain Sale of Assets

We may not:

consolidate with or merge into any other person or entity or permit any other person or entity to consolidate with or merge into us in a transaction in which we are not the surviving entity, or

transfer, lease or dispose of all or substantially all of our assets to any other person or entity unless:

the resulting, surviving or transferee entity shall be a corporation organized and existing under the laws of the United States or any state thereof and such resulting, surviving or transferee entity shall expressly assume, by supplemental indenture, executed and delivered in form satisfactory to the trustee, all of our obligations under the debt securities and the indenture;

immediately after giving effect to such transaction (and treating any indebtedness which becomes an obligation of the resulting, surviving or transferee entity as a result of such transaction as having been incurred by such entity at the time of such transaction), no default or event of default would occur or be continuing; and

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we shall have delivered to the trustee an officers' certificate and an opinion of counsel, each stating that such consolidation, merger or transfer and such supplemental indenture (if any) comply with the indenture.

Modification and Waiver

The indenture will provide that MoSys and the trustee may amend or supplement the indenture or the debt securities without notice to or the consent of any holder for clarification, corrections, and legal compliance purposes, including as follows:

to cure any ambiguity, defect or inconsistency;

to provide for uncertificated debt securities in addition to or in place of certificated debt securities;

to make any change that does not adversely affect the interests thereunder of any holder;

to qualify the indenture under the Trust Indenture Act of 1939 as amended or to comply with the requirements of the SEC in order to maintain the qualification of the indenture under the Trust Indenture Act;

to evidence the succession of another person to MoSys and that person's assumption of MoSys' covenants;

to add to MoSys' covenants;

to add any additional events of default;

to secure the debt securities;

to establish the form or terms of debt securities;

to evidence the appointment of a successor trustee under the indenture;

to close the indenture with respect to authentication and delivery of additional series of debt securities; or

to supplement the indenture in order to permit the defeasance and discharge of any series of debt securities.

The indenture will provide that MoSys and the trustee may make modifications and amendments to the indenture, and waive past defaults, with the consent of the holders of not less than a majority in aggregate principal amount at maturity of the outstanding debt securities in a series; provided, however, that no such modification or amendment may, without the consent of each holder affected thereby:

change the stated maturity of the principal of, or any installment of interest on, any debt security;

reduce the principal amount of, or premium, if any, or interest on, any debt security;

reduce the amount of a debt security's principal that would be due and payable upon a declaration of acceleration, following a default;

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change the place of payment of, the currency of payment of principal of, or premium, if any, or interest on, any debt security;

impair the right to institute suit for the enforcement of any payment on or after the stated maturity (or, in the case of a redemption, on or after the redemption date) of any debt security;

adversely affect any right to convert or exchange any debt security that is convertible or exchangeable; or

reduce the stated percentage of outstanding debt securities the consent of whose holders is necessary to modify, or amend the indenture or waive a past default.

Governing Law

Any issued debt securities and the indenture will be governed by the laws of the state of New York.

Concerning the Trustee

The indenture will provide that, except during the continuance of an event of default or default, the trustee will not be liable, except for the performance of such duties as are specifically set forth in such indenture. If an event of default has occurred and is continuing, the trustee will 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.

The indenture and provisions of the Trust Indenture Act incorporated by reference in the indenture contain limitations on the rights of the trustee, should it become our creditor, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The trustee is permitted to engage in other transactions; provided, however, that if it acquires any conflicting interest, it must eliminate such conflict or resign.

Defeasance

The following provisions will be applicable to each series of debt securities unless we state in the applicable prospectus supplement that the provisions of covenant defeasance and full defeasance will not be applicable to that series.

The indenture will provide that we will be deemed to have paid and will be discharged from any and all obligations in respect of any issued series of debt securities and the provisions of the indenture, or will be released from our obligations to comply with covenants relating to those debt securities as described above or in the applicable prospectus supplement, (which may include obligations concerning subordination of our subordinated debt securities) upon satisfaction of applicable specified conditions such as:

We have irrevocably deposited with the trustee, in trust, money and/or U.S. Government Obligations (as defined in the indenture) that through the payment of interest and principal in respect of those monies and/or U.S. Government Obligations in accordance with their terms, will provide money in an amount sufficient to pay the principal of, premium, if any, and interest, if any, on the series of debt securities on the stated maturity of such payments and any applicable sinking fund or analogous payments in accordance with the terms of the indenture and the debt securities;

Such defeasance shall not result in a breach, or constitute a default, under the indenture or any other material agreement of MoSys;

We have delivered to the trustee either (i) an opinion of counsel to the effect that holders will not recognize additional income, gain or loss for U.S. federal income tax purposes as a result of MoSys' exercise of the defeasance or covenant defeasance, or (ii) a ruling directed to the trustee received from the Internal Revenue Service to the same effect as the aforementioned opinion of counsel;

MoSys has delivered to the trustee an officer's certificate and an opinion of counsel, each stating that all the conditions precedent to full defeasance have been complied with.

In the event we exercise our option to omit compliance with certain covenants and provisions of the indenture with respect to a series of debt securities and the debt securities are declared due and payable because of the occurrence of an event of default that remains applicable, the amount of money and/or U.S. Government Obligations on deposit with the trustee will be sufficient to pay amounts due

on the debt securities at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities at the time of the acceleration resulting from such event of default, however, we will remain liable for such payments.

We cannot defease our obligations to register the transfer or exchange of our debt securities; to replace our debt securities that have been stolen, lost or mutilated; to maintain paying agencies; or to hold fund for payment in trust. We may not defease our obligations if there is a continuing event of default on securities issued under the applicable indenture, or if depositing amounts into trust would cause the trustee to have conflicting interests with respect to other of our securities.

Resignation of Trustee

Each trustee may resign or be removed with respect to one or more series of indenture securities provided that a successor trustee is appointed to act with respect to these series. In the event that two or more persons are acting as trustee with respect to different series of indenture securities under one of the indentures, each of the trustees will be a trustee of a trust separate and apart from the trust administered by any other trustee.

Global Securities

We may issue debt securities as registered securities in book-entry form only. A global security represents one or any other number of individual debt securities. All debt securities represented by the same global security have the same terms.

Each debt security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all debt securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository or its nominee, unless special termination situations arise. As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and holder of all debt securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that has an account with the depository. Thus, an investor whose security is represented by a global security will not be a holder of the debt security, but only an indirect holder of a beneficial interest in the global security.

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers. The depository that holds the global security will be considered the holder of the debt securities represented by the 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.

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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 depositary'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 depositary's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depositary 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 depositary'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.

Generally, a global security will be terminated and interests in it will be exchanged for certificates in non-global form, referred to as certificated securities only in the following instances:

if the depositary notifies us and the trustee that it is unwilling or unable to continue as depositary for that global security;

if the depositary ceases to be a clearing agency and we do not appoint another institution to act as depositary within 90 days;

if we determine that we wish to terminate that global security; or

if an event of default has occurred with regard to the debt securities represented by that global security and has not been cured or waived, and the owner of beneficial interests in the global security requests that certificated securities be delivered; we discuss defaults above under "Events of Default."

The prospectus supplement may list situations for terminating a global security that would apply only to the particular series of debt securities covered by the prospectus supplement. If a global security is terminated, only the depositary, and not we or the applicable trustee, is responsible for deciding the names of the institutions in whose names the debt securities represented by the global security will be registered and, therefore, who will be the holders of those debt securities.

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.

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 October 29, 2010, 32,116,539 shares of our common stock were outstanding and held of record by 23 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;

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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 will 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.

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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.

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 Our 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;

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.

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 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 initial public offering price;

any discounts or concessions allowed or reallocated or paid to dealers; and

any commissions paid to agents.

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 initial 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 overallocation 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.

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.

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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 (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 related financial statement schedule of MoSys, Inc. as of December 31, 2009 and 2008 and for each of the three years in the period ended December 31, 2009, incorporated in this Registration Statement on Form S-3 by reference to MoSys, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, 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.

Legal Matters

The validity of the issuance of shares of common stock offered hereby will be passed upon for us by Bingham McCutchen LLP, East 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 this information. 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);
- (b) our Annual Report on Form 10-K and Form 10-K/A for the fiscal year ended December 31, 2009, filed with the SEC on March 26, 2010 and April 30, 2010, respectively;
- (c) our Quarterly Report on Form 10-Q for the three months ended March 31, 2010, filed with the SEC on May 12, 2010;
- (d) our Quarterly Report on Form 10-Q for the three months ended June 30, 2010, filed with the SEC on August 13, 2010;
- (e) our Quarterly Report on Form 10-Q for the three months ended September 30, 2010, filed with the SEC on November 3, 2010;
- (f) our definitive proxy statement on Schedule 14A filed with the SEC on May 26, 2010;
- (g) our Current Report on Form 8-K filed with the SEC on July 6, 2010; and
- (h) our Current Report on Form 8-K filed with the SEC on July 22, 2010.

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.

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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."