Upland Software, Inc. Form 10-K March 15, 2019

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM 10-K x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES **EXCHANGE ACT OF 1934** For the fiscal year ended December 31, 2018 OR •• TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Commission File Number 001-36720 Upland Software, Inc. (Exact name of registrant as specified in its charter) Delaware 27-2992077 (State or other jurisdiction of (I.R.S. Employer incorporation or organization) Identification Number) 401 Congress Ave., Suite 1850 Austin, Texas 78701 (512) 960-1010 (Address, including zip code, and telephone number, including area code, of registrant's principal executive offices) Securities registered pursuant to Section 12(b) of the Act: Title of each class Name of each exchange on which registered Common Stock, par value \$0.0001 per share The Nasdaq Global Market Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes "No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes "No x

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No "

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer x

Non-accelerated filer "Smaller reporting company"

Emerging growth company x

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the

Act). Yes " No x

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$568 million based upon the closing price of \$34.37 of such common stock on the Nasdaq Global Market on June 29, 2018 (the last business day of the registrant's most recently completed second fiscal quarter). Shares of common stock held as of June 29, 2018 by each director and executive officer of the registrant, as well as shares held by each holder of 10% of the common stock known to the registrant, have been excluded for purposes of the foregoing calculation. This determination of affiliate status is not a conclusive determination for other purposes.

As of March 1, 2019, 21,494,738 shares of the registrant's Common Stock were outstanding.

Documents incorporated by reference:

Certain portions, as expressly described in this Annual Report on Form 10-K, of the registrant's Proxy Statement for the 2019 Annual Meeting of the Stockholders, to be filed not later than 120 days after the end of the year covered by this Annual Report, are incorporated by reference into Part III of this Annual Report where indicated.

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PART I

Special Note Regarding Forward Looking Statements This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements generally relate to future events or our future financial or operating performance. Forward-looking statements may be identified by the use of forward-looking words such as "anticipate," "believe," "may," "will," "continue," "seek," "estimate," "intend," "hope," "predict," "could," "should," "project," "plan," "expect" or plural of these words or similar expressions, although not all forward-looking statements contain these words. These forward-looking statements include, but are not limited to, statements concerning the following: our financial performance and our ability to achieve or sustain profitability or predict future results; our plans regarding future acquisitions and our ability to consummate and integrate acquisitions; our ability to obtain financing in the future on acceptable terms or at all; our expectations with respect to revenue, cost of revenue and operating expenses in future periods; our ability to attract and retain customers; our ability to successfully enter new markets and manage our international expansion; our ability to comply with privacy laws and regulations; our ability to deliver high-quality customer service; the growth of demand for enterprise work management applications; our plans regarding, and our ability to effectively manage, our growth; maintaining our senior management team and key personnel; our ability to maintain and expand our direct sales organization; the performance of our resellers; our ability to adapt to changing market conditions and competition; our ability to adapt to technological change and continue to innovate; economic and financial conditions; our ability to integrate our applications with other software applications; maintaining and expanding our relationships with third parties; costs associated with defending intellectual property infringement and other claims; our ability to maintain, protect and enhance our brand and intellectual property; our expectations with regard to trends, such as seasonality, which affect our business; our expectations with regard to revenue from perpetual licenses and professional services; our beliefs regarding the sufficient duration of our patents; our plans with respect to foreign currency exchange risk and inflation; our beliefs regarding how our applications benefit customers and what our competitive strengths are; and

other risk factors included under "Risk Factors" in this Annual Report on Form 10-K.

the operation and reliability of our third-party data centers; and

our expectations as to the payment of dividends;

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors, including those described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make. All references to "Upland," "we," "us" or "our" mean Upland Software, Inc.

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Item 1. Business

Upland provides cloud-based enterprise work management software that enables organizations to plan, manage and execute projects and work. Our software applications address enterprise work challenges in the following enterprise solution categories:

Customer Experience Management. Upland Customer Experience Management, or CXM, solutions enable organizations to manage customer relationships across multiple channels - including email, short message service, or SMS, multimedia messaging service, or MMS, web, social, and mobile apps. Upland products within this solution suite include Upland Mobile Messaging, Rant & Rave, Adestra, and RightAnswers.

Sales Enablement. Upland Sales Enablement solutions enable sales organizations to automate delivery of processes, sales activities, content, systems, and metrics at multiple stages of the sales process. Upland products within this solution suite include Qvidian, RO Innovation, and LeadLander.

Professional Services Automation. Upland Professional Services Automation, or PSA, solutions enable service organizations to manage professional services delivery and related functions. Upland products within this solution suite include Tenrox, RightAnswers, FileBound, RO Innovation, and Qvidian.

Project and Financial Management. Upland Project and Financial Management solutions enable enterprises to manage project portfolios and track, analyze and manage information technology ("IT"), cloud, and telecom spending. Upland products within this solution suite include PowerSteering, Eclipse PPM, RightAnswers, and ComSci.

Enterprise Knowledge Management. Upland Enterprise Knowledge Management, or KM, solutions enable knowledge-sharing across different departments within an enterprise. Upland products within this solution suite include RightAnswers, Tenrox, and PowerSteering.

Secure Document Services. Upland Secure Document Services solutions enable enterprises to manage and automate document intensive business processes with data security through scan and fax platforms, data monitoring and breach prevention capabilities, and the automated routing of content to its final destination. Upland products within this solution suite include AccuRoute, FileBound, and InterFAX.

Document Lifecycle Automation. Upland Document Lifecycle solutions enable users to digitize, organize, automate, integrate, analyze and optimize high volume processes. Upland products within this solution suite include AccuRoute, FileBound, Qvidian, and RO Innovation.

Our customers currently use our applications in the following functional areas:

Project Management. Business leaders and Project Management Offices, or PMOs, use our applications to optimize project portfolios, balance capacity against demand, improve financial-based decision making, align execution of projects to strategy across large organizations, and manage the entire project delivery lifecycle. Our applications deliver value to project management across a variety of use cases including continuous improvement, enterprise IT, new product development, and services departments along with industry depth in higher education, public sector, and healthcare IT.

Information Technology. IT departments use our applications to manage a variety of IT activities and resources across the enterprise. Our applications help information technology departments ensure they are delivering against the objectives of the business by helping them select and prioritize the right investments, gain greater control of resource demand and allocation, and track and report benefit realization. Our applications enable executives to gain better insight into IT spending to help prevent cost overruns and understand the nature of consumption.

Business Operations. Different functional departments use our applications to streamline operations and accelerate business performance across their value chain. Upland solutions in this area range from supply chain collaboration and factory management, back office document and vendor management, to applications that improve sales responsiveness.

Sales and Marketing. Sales and marketing teams employ our applications to drive growth through deeper customer engagement, reduced sales cycle times, and overall improved collaboration between sales, marketing, and other customer-facing functions. We offer applications that help organizations to build their online and mobile brand presence, engage their target audiences across multiple communications channels, collaborate on the creation and publication of content, and gain increased control over marketing workflows, activities, and budgets.

Call Center. Customer service and support environments use our applications to enable agents to resolve issues and to engage customers. We offer applications that improve customer experience and reduce call volume and cycle times through customer self-service tools and Voice of Customer, or VoC, technology that captures customer sentiment in real-time. Upland also offers tools that improve call center agent productivity by providing more direct access to knowledge and to customer sentiment thereby improving both inbound call outcomes and proactive outbound success. Additional solutions help call center leadership to manage agent performance and measure real-time performance relative to call resolution and customer sentiment, improve performance through gamification, and gather agent feedback to keep employee engagement high.

Human Resources and Legal. Human resources, or HR, legal departments, and law firms use our applications to improve collaboration and operational control and streamline routine processes. We offer applications that automate document management and workflow including, contracts, records, and other documentation that require enhanced security and compliance requirements. Other applications support HR-specific workflows including onboarding, employee management, termination, HR support, and time and expense management.

Through a series of acquisitions and integrations, we have built a diverse family of software applications under the Upland brand that are delivered through seven enterprise solution suites, each of which addresses a specific enterprise work management need. For the twelve months ended December 31, 2018, compared to the twelve months ended December 31, 2017, our total revenue grew from \$98.0 million to \$149.9 million, representing a 53% period-over-period growth rate. For the twelve months ended December 31, 2018, compared to the twelve months ended December 31, 2017, our subscription and support revenue grew from \$85.5 million to \$136.6 million, representing a 60% period-over-period growth rate. See Note 12 Revenue Recognition, of the Notes to Consolidated Financial Statements for more information regarding our revenue as it relates to domestic and foreign operations. To support continued growth, we intend to continue to pursue acquisitions within our core enterprise solution suites of complementary technologies and businesses. This will expand our customer base and market access, resulting in increased benefits of scale. Consistent with our growth strategy, we have made a total of 20 acquisitions in the 7 years ending December 31, 2018.

The operating platform that we use to transform acquired companies and maintain a consistently high level of operating performance is called UplandOne. This platform consists of six key areas:

High-Touch Customer Success Program. Customer success is a continuous journey based on open communication and establishing clear goals towards value realization and maximum customer success. To achieve this, we have institutionalized a set of unique customer commitments and deliverables we call the Upland Customer Success Program that includes onboarding and training, a dedicated customer success representative, upgraded success plans, quarterly virtual user conferences, periodic executive outreach and Net Promoter Score, or NPS, surveys, and an ongoing customer feedback loop.

Quality-Focused R&D. Our approach to R&D at Upland is straight-forward: prioritize customer need, leverage a metrics-driven agile approach with visibility and accountability, and deploy the most up-to-date development systems to ensure quality is built into every step of development.

Customer-Driven Innovation. Customer feedback is at the heart of the Upland customer experience. New features are added and prioritized in our product roadmaps, and then fine-tuned, based on direct customer input. Requests from our Premier Success Plan customers are given additional priority weighting for new features and minor issue resolution. Product feedback outlets include customer success account management, quarterly virtual user conferences, annual customer advisory boards, and Upland's online communities.

Expert Professional Services. Through our Professional Services organization, Upland is committed to delivering the most value from a customer's Upland investment in the shortest possible time. Once we engage on a project, we dedicate a team to the planning, configuration, integration, launch, administration and maintenance of the application. 24x7 Global Support. Upland Global support includes: prioritized issue escalation and resolution; online and phone support, 24/7/365; access to a community to share and discuss best practices, support tips, training materials, and custom reports; a knowledge-base with alerts, service recommendations, and troubleshooting content; unlimited case submissions and real-time case updates; and full support across the globe. For customers

that have more urgent support requirements, Upland Premier Success Plans provide enhanced response times and availability for the most severe support requests.

Enterprise Cloud Platform. Upland's products run on an enterprise-class cloud environment - delivering power, reliability, and flexibility. We utilize Amazon Web Services, or AWS, for all our cloud-based products and move acquired products to AWS in connection with our acquisition integration program. Upland's cloud technology gives customers the freedom from legacy applications without having to compromise security or scalability. Our applications are scalable and can support large deployments while maintaining required performance levels. Our operating results in a given period can fluctuate based on the mix of subscription and support, perpetual license, and professional services revenue. For the twelve months ended December 31, 2018, 2017 and 2016, our subscription and support revenue accounted for 91%, 87% and 88% of total revenue, respectively. Historically, we have sold certain of our applications under perpetual licenses, which also are paid in advance. For the twelve months ended December 31, 2018, 2017 and 2016, our perpetual license revenue accounted for 3%, 4% and 2% of total revenue, respectively. The support agreements related to our perpetual licenses are typically one-year in duration and entitle the customer to support and unspecified upgrades. The revenue related to such support agreements is included as part of our subscription and support revenue. Professional services revenue consists of fees related to implementation, data extraction, integration and configuration, and training on our applications. For the twelve months ended December 31, 2018, 2017 and 2016, our professional services revenue accounted for 6%, 9% and 10% of total revenue, respectively. Our Competitive Strengths

We believe the following competitive strengths are keys to our success:

Large, diversified customer base. Our customer base is highly diverse and spans a broad array of industries, including financial services, retail, technology, manufacturing, legal, education, consumer goods, media, telecommunications, government, non-profit, food and beverage, healthcare and life sciences. We service customers of varying size, ranging from large global corporations and government agencies to small- and medium-sized businesses. We have over 9,000 customers, with no customer accounting for more than 3% of our revenue.

Diversified family of software solutions. We offer a family of cloud-based enterprise work management software solutions that addresses a broad range of enterprise needs. We believe this benefits our customers as compared to many of our cloud-based competitors who offer only a single point solution for a more limited and discrete need. Recurring revenue model with high visibility. We believe we have an attractive operating model due to the recurring nature of our subscription revenue, which results in greater visibility and predictability of future revenue and enhances our ability to effectively manage our business. In addition, the cloud-based nature of our model accommodates significant additional business volume with limited incremental costs, providing us with opportunities to improve our operating margins.

Proven M&A capability. We have a proven ability to successfully identify, acquire and integrate complementary businesses to grow our company, as evidenced by the 20 acquisitions we have completed since the beginning of 2012. We believe that our acquisition experience and strategy give us a competitive advantage in identifying additional opportunities to expand our family of software applications to better serve our customers.

Experienced, proven management team. Our management team has significant operating experience and previously occupied key leadership roles at both private and public companies. In addition, our management's extensive knowledge of the industry and experience in building businesses has enabled us to quickly establish a leading position within the enterprise software market.

Cloud-based delivery. We deliver our software applications and functionality primarily through the cloud, with no hardware or software installation required by our customers. This delivery model allows us to provide reliable, cost-effective applications to our customers, add subscribers with minimal incremental effort and deploy new functionality and upgrades quickly and efficiently. We

believe our cloud-based delivery model provides us with a competitive advantage over legacy processes and on-premise systems.

Commitment to customer success. We have a dedicated customer success organization whose mission is to drive adoption, value realization, retention, and loyalty across our customer base. Our focus on enabling our customers' success is a key reason our annual net dollar retention rate, as defined in "Item 7. - Management's Discussion and Analysis" herein, was 98% as of December 31, 2018. Our commitment to customer success has enabled us to expand our footprint within customer organizations and facilitate the ongoing adoption of our enterprise software applications. We utilize NPS methodology to track our progress and drive continuous improvement. Our Strategy for Growth

We believe the key elements of our strategy for growth are as follows:

Acquire complementary software businesses. We intend to pursue acquisitions of complementary technologies, products, and businesses to expand our product families and customer base, and to provide access to new markets and increased benefits of scale. Our experienced corporate development team continually monitors a pipeline of potential acquisition candidates, many of which are smaller in scale or address only limited enterprise challenges, which often operate outside the scope of some of our larger competitors. We believe that our acquisition experience and strategy give us a competitive advantage in identifying additional opportunities to expand our family of cloud-based applications to better serve our customers. We intend to prioritize acquisitions within the solution categories we currently offer.

Increase sales to existing customers. We believe there is a significant opportunity to expand the adoption of our applications within our existing customer organizations, particularly within divisions or departments that have not previously used our applications. We also intend to cross-sell additional applications to our existing customers, as very few of our customers currently use more than one of our applications. In addition, we intend to add new applications to our family of applications that will address additional functions within the enterprise spectrum. We believe these initiatives will significantly increase the value of our platform to our customers, further strengthen our competitive position, and drive increased adoption of multiple applications by our customers.

Add new customers. We maintain direct sales and marketing capabilities to further grow our customer base. We also maintain indirect sales channels through alliances with strategic partners that can leverage our applications with their complementary services and technologies. In addition, we continue to expand the range of integrations between our software and third-party applications and platforms, which we believe make our applications more attractive to a broader audience of potential customers.

Expand globally. We believe there is an opportunity to grow sales of our applications globally. During the years ended December 31, 2018, 2017, and 2016, approximately 22%, 18%, and 16%, respectively, of our revenue was derived from sales outside the United States. Over the next several years, we plan to continue to evaluate growth opportunities outside the United States through selective acquisitions, the hiring of additional sales personnel, and entering into strategic partnerships.

Improve and enhance applications. We intend to continue to invest in research and development and work closely with our customers to identify and improve new applications, features and functionalities that address customer requirements across the enterprise spectrum. We also intend to continue to expand the breadth of our applications with additional analytics, third-party integrations, and social and mobile capabilities to meet the evolving needs of today's knowledge workers.

Customers

We service customers ranging from large global corporations and government agencies to small- and medium-sized businesses. Our customers operate in a wide variety of industries, including financial services, retail, technology, manufacturing, legal, education, consumer goods, media, telecommunications, government,

non-profit, food and beverage, healthcare and life sciences, chemicals, and travel and hospitality. For the year ended December 31, 2018 approximately 80% of our recurring revenue was generated from what we consider to be major accounts, those customers with contracted annual recurring revenue of \$25,000 or more. No customer represented more than 3% of our revenue for the year ended December 31, 2018. Sales

We sell primarily through a direct sales organization comprised of inside sales and field sales personnel. In addition to our direct sales organization, we have an indirect sales organization that sells to distributors and value-added resellers. We employ a land-and-expand go-to-market strategy. After we demonstrate the value of an initial application to a customer, our sales and account management teams work to expand the adoption of that initial application across the customer, and cross-sell additional applications to address other enterprise work management needs of the customer. Our customer success organization supports our direct sales efforts by managing the post-sale customer lifecycle. Our subscription agreements are typically sold either on a per-seat basis or on a minimum contracted volume basis with overage fees billed in arrears, depending on the application being sold. Contract terms typically range from one to three years and are prepaid annually in advance.

Marketing

Our marketing activities are designed to build awareness of the Upland brand and the solutions we offer, generate thought leadership, and create demand, resulting in leads and opportunities for our sales organizations. We focus a significant portion of our marketing activities on our existing installed base of customers to drive expansion and cross-sell opportunities. Our marketing programs target decision makers and influencers who participate in a buying cycle, including the chief information officer, the chief marketing officer, the chief financial officer, the director of process excellence, and other key technology and business managers. Our principal marketing programs include: use of our website to provide information about us and our software applications, as well as educational opportunities for potential customers;

field marketing events for customers and prospective customers;

participation in, and sponsorship of, executive events, trade shows, and industry events;

our online virtual user conferences;

integrated digital marketing campaigns, including email, online advertising, blogs, and webinars; public relations, analyst relations, and social media initiatives; and

sales representatives who respond to incoming leads to convert them into new sales opportunities. Customer Success

Our customer success organization is structured to manage all aspects of our post-sale customer lifecycle. This organization consists of dedicated teams with a mission to drive adoption of our products, value realization, retention, and loyalty across our customer base. Our customer success organization has four core functional areas with strategic focus on customer relationship management:

Customer Care. Our customer care team assists customers throughout their lifecycle with the Upland family of applications by making service offerings available to all customers as part of their standard customer agreements, including webinars, virtual user conferences, and online community engagement.

Professional Services. Our professional services team is responsible for coordinating all activities relating to the implementation, transition, and on-boarding of new customers and assisting new customers with the addition of new applications to their accounts. Typical professional services engagements vary in length from a few weeks to several months depending on the size and scope of the engagement and are in addition to services provided under our standard customer agreement and are fee-

based. In addition, our project managers and consultants work closely with our customers to provide services that help customers maximize the utility of our applications.

Cees Hartgring, Ph.D., has served as Vice President, Client Services and Sales since June 2007. Dr. Hartgring served as Vice President and General Manager, Manufacturing Process Solutions from January 2004 through May 2007, as Vice President, Worldwide Sales and Strategic Business Development from April 2003 through December 2003 and as Vice President of Sales from September 2002 through March 2003. Prior to joining PDF, Dr. Hartgring served as President and Chief Executive Officer of Trimedia Technologies, a Philips Semiconductor spinout. Dr. Hartgring also held various executive positions at Philips Semiconductor, most recently as Vice President and General Manager of the Trimedia business unit. Dr. Hartgring received an undergraduate degree from the Technical University Delft and an M.S.E.E. and a Ph.D. in Electrical Engineering and Computer Science from the University of California at Berkeley.

Kimon Michaels, Ph.D., one of our founders, has served as Vice President, Products and Solutions since July 2010. Mr. Michaels served as Vice President, Design for Manufacturability from June 2007 through June 2010. Prior to that, Dr. Michaels served as Vice President, Field Operations for Manufacturing Process Solutions from January 2006 through May 2007, and has been a Director since November 1995. From March 1993 through December 2005, he served in various vice presidential capacities. He also served as Chief Financial Officer from November 1995 to July 1998. Dr. Michaels received a B.S. in Electrical Engineering, an M.S. E.C.E. and a Ph.D. E.C.E. from Carnegie Mellon University.

Available Information

We file or furnish various reports, such as registration statements, periodic and current reports, proxy statements and other materials with the SEC. Our Internet website address is www.pdf.com. You may obtain, free of charge on our website, copies of our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The Company's website address provided is not intended to function as a hyperlink, and the information on the Company's website is not, and should not be considered, part of this Annual Report on Form 10-K and is not incorporated by reference herein.

In addition to the materials that are posted on our website, you may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549-0120. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a Web site (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers, such as us, that file electronically with the SEC.

Item 1A. Risk Factors.

We generate a large percentage of our revenues from a limited number of customers, so the loss of any one of these customers could significantly reduce our revenue and results of operations below expectations.

Historically, we have had a small number of large customers for our core Design-to-silicon-yield solutions and we expect this to continue in the near term. In the year ended December 31, 2012, three customers accounted for 73% of our revenues, with Global Foundries representing 40%, IBM representing 20% and Samsung representing 13%. In the year ended December 31, 2011, three customers accounted for 58% of our revenues, with Global Foundries representing 19% and Samsung representing 15%. In the year ended December 31, 2010, four customers accounted for 60% of our revenues, with Global Foundries representing 18%, Samsung representing 12% and IBM representing 11%. We could lose a customer due to its decision not to engage us

on future process nodes, its decision not to develop its own future process node, or as a result of industry factors, including consolidation. The loss of any of these customers could significantly reduce our total revenue below expectations. Further, if any of these customers default, declare bankruptcy or otherwise delay or fail to pay amounts owed, our results of operations would be negatively affected in the short term and possibly the long term. These customers may seek to renegotiate pre-existing contractual commitments due to adverse changes in their own businesses or, in some cases, take advantage of contractual provisions that permit the suspension of contracted work for some period if their business experiences a financial hardship, which would harm our operating results. In particular, these events could cause significant fluctuations in results of operations because our expenses are fixed in the short term and it takes us a long time to replace customers or reassign resources.

Decreases in wafer volumes at our customers' manufacturing sites or the volume of ICs that some of our customers are able to sell to their customers would cause our Gainshare performance incentives revenue to suffer.

Our Gainshare performance incentives revenue is largely determined by wafer volumes at manufacturing sites covered by our contracts and, in some cases, the volume of an IC product that our customer is able to sell to its customers. Both of these factors are outside of our control. Further, some of our manufacturing customers' business is largely dependent on single-source customers. If those customers reduce orders or move the orders to manufacturing facilities not covered by our contracts, our Gainshare revenue will decrease. Reduced demand for semiconductor products decreases the volume of wafers and, in some cases, products our customers are able to sell, which would also directly decrease our Gainshare revenue. Also, our customers may unilaterally decide to implement changes to their manufacturing processes during the period that is covered by Gainshare, which could negatively affect yield results and our revenue. Since we currently work on a small number of large projects at a specified manufacturing sites and, in some cases, on specific IC products, our results of operations are adversely affected by negative changes at those sites or in those products. For example, if wafer orders from sites covered by our contracts are not secured by our customers, if an end product does not achieve commercial viability, if a process line or, in some cases, a specific product, do not achieve significant increases in yield or sustain significant volume manufacturing during the time we receive Gainshare, revenues associated with such volumes or products would be negatively impacted. This could significantly reduce our revenue and results of operations below expectations. In addition, if we work with two directly competitive manufacturing facilities or products, volume in one may offset volume, and thus any of our related Gainshare, in the other facility or product.

If semiconductor designers and manufacturers do not continue to adopt, or they significantly delay adoption of, our Design-to-silicon-yield solutions, our revenues will suffer.

If semiconductor designers and manufacturers do not continue to adopt our Design-to-silicon-yield solutions, both as currently comprised and as we may offer them in the future, our revenues will decline. We may not be successful if we do not continue to enter into agreements with existing customers and new customers that cover a larger number of IC products and processes and manufacturing facilities. If we do not continue to develop customer relationships with companies that are integrated device manufacturers ("IDMs"), fabless semiconductor companies, and foundries, as well as system manufacturers, the market acceptance of our solutions will suffer. Factors that may limit adoption of our Design-to-silicon-yield solutions by semiconductor companies include:

- our existing and potential customers' delay in their adoption of the current or next process technology;
- IDMs of logic ICs discontinuing or significantly cutting back their investment in the development of new process technology as a result of a shift to a model of outsourcing a larger proportion, or all, of the mass production of their ICs;
- our inability to keep pace with the rapidly evolving technologies and equipment used in the semiconductor design and manufacturing processes;
- our customers' failure to achieve satisfactory yield improvements using our Design-to-silicon-yield solutions;
- fewer processes being developed at our customers and, therefore, a reduction in the potential impact our solutions can add at any single customer; and

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our inability to develop, market, or sell effective solutions that are outside of our traditional logic focus of manufacturing process solutions.

The semiconductor market is volatile and unpredictable and is exacerbated by economic uncertainty, which limits our ability to forecast our business and could negatively impact our results of operations.

The semiconductor industry historically has been volatile with up cycles and down cycles, due to sudden changes in customers' manufacturing capacity requirements and spending, which depend in part on capacity utilization, demand for customers' IC products by consumers, inventory levels relative to demand, and access to affordable capital. As a result of the various factors that affect this volatility, the timing and length of any cycles can be difficult to predict. Economic uncertainty exacerbates negative trends in consumer spending and can cause some of our customers to delay or refrain altogether from entering into new engagements, licensing new or additional software products, or renewing maintenance and support for existing licensed software. Difficulties in obtaining capital and deteriorating market conditions may also lead to the inability of some customers to obtain affordable financing for other purchases, which could tie up funds otherwise budgeted for purchases of our solutions and technologies. This could negatively affect our revenues and make it challenging for us to forecast our operating results, make business decisions, and identify the risks that may affect our business, financial condition and results of operations. Customers with liquidity issues may also lead to additional bad debt expense.

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Our solution implementations may take longer than budgeted, which could cause us to lose customers and may result in adjustments to our operating results.

Our solution implementations require a team of engineers to collaborate with our customers to address complex yield loss issues by using our software and other technologies. We must estimate the amount of time needed to complete an existing solution implementation in order to estimate when the engineers will be able to commence a new solution implementation. In addition, our accounting for solution implementation contracts, which generate fixed fees, sometimes require adjustments to profit (loss) based on revised estimates during the performance of the contract. These adjustments may have a material effect on our results of operations in the period in which they are made. The estimates giving rise to these risks, which are inherent in fixed-price contracts, include the forecasting of costs and schedules, and contract revenues related to contract performance.

It typically takes us a long time to sell our unique solutions to new customers and into new markets, and that can result in uncertainty and delays in generating revenues.

Our gainshare performance incentives business model is unique and our Design-to-silicon-yield solutions are often unfamiliar to new customers. This results in a long sales cycle and requires a significant amount of our senior management's time and effort. Furthermore, we need to target those individuals within a customer's organization who have overall responsibility for the profitability of an integrated circuit ("IC"). These individuals tend to be senior management or executive officers. We may face difficulty identifying and establishing contact with such individuals. Even after initial acceptance, due to the complexity of structuring the gainshare performance incentives component, the negotiation and documentation processes can be lengthy. It can take nine months or more to reach a signed contract with a customer. Unexpected delays in our sales cycle could cause our revenues to fall short of expectations. Our efforts to leverage our FDC technology in the relatively new market of the solar panel industry may not be successful. Further, ongoing negotiations and evaluation projects with photovoltaic manufacturers may not result in significant revenues for us if we are unable to close new engagements in these markets on terms favorable to us, in a timely manner, or at all, or if we are unable to successfully deliver our products and services to such markets.

If we are not able to attract, retain, motivate, and strategically locate talented employees, including some key executives, our business may suffer.

Our success and competitiveness depend on our ability to attract, retain, motivate, and strategically locate in our offices around the globe, talented employees, including some of our key executives. Achieving this objective may be difficult due to many factors, including fluctuations in global economic and industry conditions, changes in our management or leadership, the hiring practices at our competitors or customers, cost reduction activities, and the effectiveness of our compensation programs, including equity-based programs. Further, we have had, and expect to continue to have, difficulty in obtaining visas permitting entry for some of our employees that are foreign nationals into the United States, and delays in obtaining visas permitting entry into other key countries, for several of our key executives or a significant number of our engineers, it could disrupt our ability to implement our business strategy. If we do not successfully attract, retain, and motivate key employees, including key executives, we may be unable to realize our business objectives and our operating results may suffer.

If we do not effectively manage, support, and safeguard our worldwide information systems, and integrate recent and planned growth, our business strategy may fail.

We have experienced in the past, and may experience in the future, interruptions in our information systems on which our global operations depend. Further, we may face attempts by others to gain unauthorized access through the Internet to our information technology systems, to intentionally hack, interfere with, or cause physical or digital

damage to or failure of such systems (such as significant viruses or worms), which attempts we may be unable to prevent. We could be unaware of an incident or its magnitude and effects until after it is too late to prevent it and the damage it may cause. The theft, unauthorized use, or a cybersecurity attack that results in the publication of our trade secrets and other confidential business information as a result of such an incident could negatively affect our competitive position, the value of our investment in product or research and development, and third parties might assert against us or our customers claims related to resulting losses of confidential or proprietary information or end-user data and/or system reliability. In any such event, our business could be subject to significant disruption, and we could suffer monetary and other losses, including reputational harm. In addition, we must frequently expand our internal information system to meet increasing demand in storage, computing and communication. Our internal information that we transmit. Building and managing the support necessary for our growth places significant demands on our management and resources. These demands may divert these resources from the continued growth of our business strategy. Further, we must adequately train our new personnel, especially our client service and technical support personnel, to effectively and accurately, respond to and support our customers. If we fail to do this, it could lead to dissatisfaction among our customers, which could slow our growth.

Our stock price has been volatile in the past, and our earnings per share and other operating results may be unusually high in a given quarter, thereby raising investors' expectations, and then unusually low in the next quarter, thereby disappointing investors, which could cause our stock price to drop again and increase potential dilution to our stockholders.

Our stock price has fluctuated widely during the last few years, from a low closing price of \$0.97 per share during March 2009 to recent highs, including the closing price of \$16.96 per share during February 2013. A factor in the volatility may be that our historical quarterly operating results have fluctuated. Our future quarterly operating results will likely fluctuate from time to time and may not meet the expectations of securities analysts and investors in some future period, which could cause our stock price to decrease again. A significant reduction in our stock price negatively impacts our ability to raise equity capital in the public markets and increases the cost to us, as measured by dilution to our existing shareholders, of equity financing. In addition, the reduced stock price also increases the cost to us, in terms of dilution, of using our equity for employee compensation or for acquisitions of other businesses. A greatly reduced stock price could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest, and fewer business development opportunities. Also, significant volatility in the stock price could be followed by a securities class action lawsuit, which could result in substantial costs and a diversion of our management's attention and resources.

If we fail to protect our intellectual property rights, customers or potential competitors may be able to use our technologies to develop their own solutions which could weaken our competitive position, reduce our revenue, or increase our costs.

Our success depends largely on the proprietary nature of our technologies. Our contractual, patent, copyright, trademark, and trade secret protection may not be effective against any particular threat or in any particular location. Our pending patent applications may not result in issued patents, and even if issued, they may not be sufficiently broad to protect our proprietary technologies. Litigation may be necessary from time to time to enforce our IP rights or to determine the validity and scope of the proprietary rights of others. As a result of any such litigation, we could lose our proprietary rights and incur substantial unexpected operating costs. Litigation could also divert our resources, including our managerial and engineering resources.

Competition in the market for yield improvement solutions and increased integration between IC design and manufacturing may intensify in the future, which could impede our ability to grow or execute our strategy.

Competition in our market may intensify in the future, which could slow our ability to grow or execute our strategy and could lead to increased pricing pressure, negatively impacting our revenues. Our current and potential customers may choose to develop their own solutions internally, particularly if we are slow in deploying our solutions or improving them to meet market needs. These and other competitors may be able to operate with a lower cost structure than our engineering organization, which would give any such competitor's products a competitive advantage over our solutions. We currently face indirect competition from the internal groups at IC companies and some direct competition from providers of yield management or prediction software such as KLA-Tencor, Mentor Graphics (through its acquisition of Ponte Solutions), Rudolph Technologies, Inc. ("Rudolph") (through its acquisition of Yield Dynamics), and Synopsys, Inc., and process control software, such as Applied Materials, Inc. (through its acquisition of the software division of Brooks Automation), BISTel Inc., MKS Instruments, Inc., Rudolph and Trancom Technology, Inc. Further, ARM Ltd. and Synopsys (through its acquisition of Virage Logic Corporation) provide standard cells in the physical IP space and Tela provides software for standard cell synthesis, each of which could compete with our pdBRIX[™] solution. In addition, electronic design automation suppliers provide alternative DFM solutions that may compete for the same budgetary funds. There may be other providers of commercial solutions for systematic IC yield and performance enhancement of which we are not aware. Further, some providers of yield management software or inspection equipment may seek to broaden their product offerings and compete with us. In

addition, we believe that the demand for solutions that address the need for better integration between the silicon design and manufacturing processes may encourage direct competitors to enter into our market. For example, large integrated organizations, such as IDMs, electronic design automation software providers, IC design service companies or semiconductor equipment vendors, may decide to spin-off a business unit that competes with us. Other potential competitors include fabrication facilities that may decide to offer solutions competitive with ours as part of their value proposition to their customers. If these potential competitors change the pricing environment or are able to attract industry partners or customers faster than we can, we may not be able to grow and execute our strategy as quickly or at all.

We face operational and financial risks associated with international operations that could negatively impact our revenue.

We have in the past expanded and reorganized, at different times, our non-U.S. operations and may in the future continue such expansion or reorganization by establishing or restructuring international subsidiaries, offices, or contractor relationships in locations, if and when, deemed appropriate by our management. Thus, the success of our business is subject to risks inherent in doing business internationally, including in particular:

- some of our key engineers and other personnel are foreign nationals and they may have difficulty gaining access to the United States and other countries in which our customers or our offices may be located and it may be difficult for us to recruit and retain qualified technical and managerial employees in foreign offices;
- greater difficulty in collecting account receivables resulting in longer collection periods;
- language and other cultural differences may inhibit our sales and marketing efforts and create internal communication problems among our U.S. and foreign research and development teams, increasing the difficulty of managing multiple, remote locations performing various development, quality assurance, and yield ramp analysis projects;
- compliance with, inconsistencies among, and unexpected changes in, a wide variety of foreign laws and regulatory environments with which we are not familiar, including, among other issues, with respect to employees, protection of our IP, and a wide variety of operational regulations and trade and export controls under domestic, foreign, and international law;
- currency risk due to the fact that certain of our payables for our international offices are denominated in the local currency, including the Euro, Yen, and RMB, while virtually all of our revenues is denominated in U.S. dollars;
- quarantine, private travel limitation, or business disruption in regions affecting our operations, stemming from actual, imminent or perceived outbreak of human pandemic or contagious disease;
- in the event a larger portion of our revenues becomes denominated in foreign currencies, we would be subject to a potentially significant exchange rate risk;
- economic or political instability, including but not limited to armed conflict, terrorism, interference with information or communication of networks or systems, and the resulting disruption to economic activity and business operations;

International revenues accounted for approximately 60% of our total revenues for the year ended December 31, 2012 compared to 68% for the year ended December 31, 2011 and 79% for the year ended December 31, 2010. Thus, we face the following additional risks:

- a downturn in the local economies of our customers, which could limit our ability to retain existing customers and attract new ones in such locations; and
- if the U.S. dollar increases in value relative to local currencies the cost of our solutions will be more expensive to existing and potential local customers and therefore less competitive.

Further, our employees and contractors include professionals located in various international locations, including Shanghai, China, who provide primarily CV test chip-related services, and Ramallah, Palestine, who provide software-related development, quality assurance, maintenance, and other technical support services for certain of our software products. Political changes, including policies regarding export control, that affect these or other international operations could disrupt or limit the work our employees and contractors are able to perform, and thus negatively affect the range of services we are able to provide our customers or our cost for such services.

Measurement of our Gainshare performance incentives requires data collection and is subject to customer agreement, which can result in uncertainty and cause quarterly results to fluctuate.

We can only recognize revenue based on Gainshare performance incentives once we have reached agreement with our customers on their level of yield performance improvements. Because measuring the amount of yield improvement is inherently complicated and dependent on our customers' internal information systems, there may be uncertainty as to some components of measurement. This could result in our recognition of less revenue than expected. In addition, any delay in measuring revenue attributable to Gainshare could cause all of the associated revenue to be delayed until the next quarter. Since we currently have only a few large customers and we are relying on Gainshare as a significant component of our total revenues, any delay could significantly harm our quarterly results.

Changes in the structure of our customer contracts, including the mix between fixed and variable revenue and the mix of elements, including perpetual and term-based licenses, can adversely affect the amount and timing of our total revenues.

Our long-term success is largely dependent upon our ability to structure our future customer contracts to include a larger Gainshare performance incentives component relative to the fixed fee component. We typically recognize the fixed fee component earlier than the gainshare component so if we are successful in increasing the Gainshare component of our customer contracts, we will experience an adverse impact on our operating results in the short term as we reduce the fixed fee component. Due to acquisitions and expanded business strategies, the mix of elements in some of our contracts has changed recently and the relative importance of the software component in some of our contracts has increased. We have experienced, and may in the future experience, delays in the expected recognition of revenue associated with generally accepted accounting principles regarding the timing of revenue recognition in multi-element software arrangements, including the effect of acceptance criteria as a result of the change in our contracts. If we fail to meet contractual acceptance criteria on time or at all, the total revenues we receive under a contract could be delayed or decline. Further, if we mix term-based licenses with perpetual licenses, it will impact the timing of the recognition of revenue from that customer. In addition, by increasing the Gainshare or the software component, we may increase the variability or timing of recognition of our revenue, and therefore increase the risk that our total future revenues will be lower than expected and fluctuate significantly from period to period.

We have a history of losses and we may incur losses in the future and be unable to maintain profitability.

We experienced losses in the fiscal year ended December 31, 2009 and in the past. We may not maintain profitability if our costs increase more quickly than we expect or if revenues decrease. In addition, virtually all of our operating expenses are fixed in the short term, so any shortfall in anticipated revenue in a given period could significantly reduce our operating results below expectations. Our accumulated deficit was \$91.6 million as of December 31, 2012. We expect to continue to incur significant expenses in connection with:

- funding for research and development;
- expansion of our solution implementation teams;
- expansion of our sales and marketing efforts; and
- additional non-cash charges relating to amortization and stock-based compensation.

As a result, if we do not significantly increase revenues to maintain profitability on a quarterly or annual basis, we would incur losses and our stock price could decline. Further, if we incur losses in the future, we may be subject to further decreases to earnings associated with the corresponding impairment of our long-lived assets.

Inadvertent disclosure of our customers' confidential information could result in costly litigation and cause us to lose existing and potential customers.

Our customers consider their product yield information and other confidential information, which we must gather in the course of our engagement with the customer, to be extremely competitively sensitive. If we inadvertently disclosed or were required to disclose this information, we would likely lose existing and potential customers and could be subject to costly litigation. In addition, to avoid potential disclosure of confidential information to competitors, some of our customers may, in the future, ask us not to work with key competitive products, which could limit our revenue opportunities.

Our technologies could infringe the intellectual property rights of others, causing costly litigation and the loss of significant rights.

Significant litigation regarding intellectual property rights exists in the semiconductor industry. It is possible that a third party may claim that our technologies infringe their intellectual property rights or misappropriate their trade secrets. Any claim, even if without merit, could be time consuming to defend, result in costly litigation, or require us to enter into royalty or licensing agreements, which may not be available to us on acceptable terms, or at all. A successful claim of infringement against us in connection with the use of our technologies could adversely affect our business.

Our ability to sell our products may depend on the quality of our support and services offerings, and our failure to offer high-quality support and services could negatively affect our sales and results of operations.

Once our software products are integrated within our customers' hardware and software systems, our customers may depend on our support organization to resolve any issues relating to our products. A high level of support is critical for the successful marketing and sale of our products. If we do not effectively assist our customers in deploying our products, succeed in helping our customers quickly resolve post-deployment issues, and provide effective ongoing support, our ability to sell our software products to existing customers may be negatively affected, and our reputation with potential customers could be harmed. If our software customers have a poor perception of our support and services offerings, they may choose not to renew software support and maintenance when the current period expires. In addition, due to our international operations, our support organization faces challenges associated with delivering support, training, and documentation where the user's native language may not be English. If we fail to maintain high-quality support and services, our customers may choose our competitors' products instead of ours in the future.

Defects in our proprietary technologies, hardware and software tools, and the cost of support to remedy any such defects could decrease our revenue and our competitive market share.

If the software, hardware, or proprietary technologies we provide to a customer contain defects that increase our customer's cost of goods sold and time-to-market or damage our customer's property, these defects could significantly decrease the market acceptance of our solutions. Further, the cost of support resources required to remedy any defects in our technologies, hardware, or software tools could exceed our expectations. Any actual or perceived defects with our software, hardware, or proprietary technologies may also hinder our ability to attract or retain industry partners or customers, leading to a decrease in our revenue. These defects are frequently found during the period following introduction of new software, hardware, or proprietary technologies or enhancements to existing software, hardware, or proprietary technologies and manufacturing process recommended by us. If our software, hardware, or proprietary technologies contain errors or defects, it could require us to expend significant resources to remedy these problems, which could reduce margins and result in the diversion of technical and other resources from our other customer implementations and development efforts.

Failing to maintain the effectiveness of our internal controls over financial reporting could impede our ability to provide accurate and timely financial information, which could cause our investors to lose confidence in the accuracy and completeness of our financial reports and could cause our stock price to decline.

As of December 31, 2009 and 2010, we identified material weaknesses in connection with the evaluation of the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act ("Section 404"). These control deficiencies resulted in adjustments during the 2009 audit to our consolidated financial statements for the year ended December 31, 2009, and during the 2010 audit to our consolidated financial statements for the year ended December 31, 2010. In the future, our management may identify additional deficiencies regarding the design and operating effectiveness of our system of internal control and we may not be able to remediate such deficiencies in time to meet the continuing reporting deadlines imposed by Section 404. Further, any costs of remediation may be substantial. A material weakness in our internal controls could result in a material misstatement not being prevented or detected, which could result in the need for a restatement of past periods. Moreover, our independent registered public accounting firm may deem that we did not maintain, in all material respects, effective internal control over financial reporting if we are unable to remediate deficiencies on a timely basis. If we fail to remediate material weaknesses, fail to implement required new or improved controls, encounter difficulties in their implementation, or are unable at any time to assert that we maintain effective internal controls, it could harm our operating results, cause us to fail to meet our SEC reporting obligations on a timely basis, result in material misstatements, and our investors could lose confidence in the accuracy and completeness of our financial reports and our stock price could decline.

Changes in effective tax rates could negatively affect our operating results and we may not be able to use tax credits before their expiration if we fail to have sufficient future income.

We conduct our business globally and, as a result, are subject to taxation in the United States and foreign countries. Our future tax rates could be affected by numerous factors, including changes in tax laws or the interpretation of such tax laws and changes in accounting policies. Our filings are subject to reviews or audit by the Internal Revenue Service and state, local and foreign taxing authorities. We cannot be sure that any final determination in an audit would not be materially different than the treatment reflected in our historical income tax provisions and accruals. If additional taxes are assessed as a result of an audit, there could be a significant negative effect on our income tax provision and our operating results in the period or periods for which that determination is made. Any changes in our geographical earnings mix in various tax jurisdictions, including those resulting from transfer pricing adjustments, could materially increase our effective tax rate. Furthermore, we maintain deferred tax assets related to federal,

foreign and certain states. Our ability to use these credits prior to their expiration is dependent upon having sufficient future income.

Item 1B. Unresolved Staff Comments

None.

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Item 2. Properties

Our principal executive offices are located in San Jose, California. Our current lease has decreasing commitments due to a renegotiation of the lease we completed in 2012. Approximately 21,200 square feet under current lease will no longer be included under the lease after the end of September 2013. We are not utilizing that space and have subleased all of it through that date. We are utilizing the other approximately 28,600 square feet under the lease, which terminates at the end of September 2018. In addition, we lease laboratory space in San Jose, California under a lease that expires in November 2014. We lease other office space in Pennsylvania and Texas in the United States. In addition, we have offices in France, Germany, Italy, China, Japan, Korea, and Taiwan with an aggregate of approximately 39,200 square feet under various leases that expire at different times through 2017. We believe our existing facilities are adequate to meet our current needs and are being utilized consistently with our past practice. We consistently look for opportunities to minimize costs related to office space through improved efficiencies and intend to make changes to leased facilities in the future as appropriate to reflect changes in worldwide operations and headcount.

Item 3. Legal Proceedings

From time to time, we are subject to various claims and legal proceedings that arise in the ordinary course of business. Although we currently believe that the ultimate outcome of any of these claims and proceedings, individually and in the aggregate, will not have a material adverse effect on our financial position or overall trends in results of operations, litigation is subject to inherent uncertainty. If an unfavorable ruling occurs in any of the legal proceedings described below, our financial position and results of operations and cash flows could be negatively affected. We accrue for losses related to litigation when a potential loss is probable and the loss can be reasonably estimated in accordance with FASB requirements. A reasonably possible loss in excess of amounts accrued is not significant to the financial statements. With respect to the matter below, we have determined a potential loss is not probable at this time and, accordingly, no amount has been accrued at December 31, 2012. As we continue to monitor this matter, however, our determination could change and we may decide a different reserve is appropriate in the future.

Philip Steven Melman filed a complaint against us and our Chief Executive Officer on December 7, 2009 in the Superior Court for Santa Clara County. In the complaint, Mr. Melman alleges wrongful discharge based on discrimination, fraud, breach of contract and similar theories, in connection with the termination of Mr. Melman's employment with us. The complaint seeks compensatory and punitive damages, any other available remedies, as well as attorney's fees and costs. Summary judgment in the favor of both the Company and Dr. Kibarian was entered by the court on October 27, 2011 and November 15, 2011, respectively. Mr. Melman is appealing both orders. We believe the appeal is without merit and intend to continue to vigorously oppose it.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market For Registrant's Common Equity, and Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock trades on the NASDAQ Global Market under the symbol "PDFS". As of March 5, 2013, we had approximately 59 stockholders of record. The number of stockholders of record does not include individuals whose stock is in nominee or "street name" accounts through brokers.

The following table sets forth for the periods indicated the high and low closing sale prices for our common stock as reported by the NASDAQ Global Market:

2012		High		Low
First Quarter	\$	8.44	\$	6.30
Second Quarter	\$	10.54	\$	7.35
Third Quarter	\$	13.66	\$	8.75
Fourth Quarter	\$	14.72	\$	13.00
2011		High		Low
2011 First Quarter	\$	High 7.09	\$	Low 4.78
	\$ \$	U		
First Quarter		7.09	\$	4.78
First Quarter Second Quarter	\$	7.09 7.02	\$ \$	4.78 5.55

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Dividend Policy

No cash dividends were declared or paid in 2012 or 2011. We currently intend to retain all available funds to finance future internal growth and product development and therefore do not anticipate paying any cash dividends on our common stock for the foreseeable future.

Stock Performance Graph

The following graph and tables compare the cumulative total stockholder return data for our stock since December 31, 2007 to the cumulative return over such period of (i) The NASDAQ Composite Index and (ii) the RDG Technology Composite Index. The graph assumes that \$100 was invested on December 31, 2007. The graph and tables further assume that such amount was initially invested in the Common Stock of the Company at a per share price of \$9.01 (closing price on December 31, 2007) and that of any dividends were reinvested. This performance graph and the corresponding tables are not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act or the Exchange Act whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock price performance on the following graph and tables is not necessarily indicative of future stock price performance.

	12/07	12/08	12/09	12/10	12/11	12/12
PDF Solutions, Inc.	100.00	15.98	42.73	53.50	77.36	152.94
NASDAQ Composite Index	100.00	59.03	82.25	97.32	98.63	110.78
RDG Technology	100.00	56.89	91.53	103.10	103.14	117.75

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The table below sets forth the information with respect to purchases made by or on behalf of the Company or any "affiliated purchaser" (as the term is defined in Rule 10b-18(a)(3) under the Exchange Act) of our common stock during the fourth quarter ended December 31, 2012 (in thousands except per share amounts).

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ISSUER PURCHASES OF EQUITY SECURITIES

Period

Total N