

PDF SOLUTIONS INC  
Form 10-Q  
November 06, 2015

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**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

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**FORM 10-Q**

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

**For the Quarterly Period ended September 30, 2015**

or

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

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission File Number 000-31311**

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**PDF SOLUTIONS, INC.**

(Exact name of Registrant as Specified in its Charter)

<b>Delaware</b>	<b>25-1701361</b>
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

<b>333 West San Carlos Street, Suite 1000</b>	<b>95110</b>
<b>San Jose, California</b>	<b>(Zip Code)</b>
(Address of Principal Executive Offices)	

**(408) 280-7900**

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(Registrant's Telephone Number, Including Area Code)

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 Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark 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 No

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company  
(Do not check if a smaller reporting company)

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

The number of shares outstanding of the Registrant's Common Stock as of November 2, 2015 was 31,431,012.

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**PART I — FINANCIAL INFORMATION****Item 1. Financial Statements****PDF SOLUTIONS, INC.****CONDENSED CONSOLIDATED BALANCE SHEETS**

(unaudited)

(in thousands, except par value)

	<b>September 30, 2015</b>	<b>December 31, 2014</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 126,259	\$ 115,464
Accounts receivable, net of allowance of \$299 and \$381, respectively	31,550	37,725
Deferred tax assets - current portion	2,805	3,343
Prepaid expenses and other current assets	4,727	2,888
Total current assets	165,341	159,420
Property and equipment, net	11,362	8,832
Deferred tax assets - non-current portion	7,174	8,025
Goodwill	470	—
Intangible assets, net	4,831	—
Other non-current assets	2,882	1,161
Total assets	\$ 192,060	\$ 177,438
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 1,453	\$ 803
Accrued compensation and related benefits	4,257	6,112
Accrued and other current liabilities	2,928	1,733
Deferred revenues – current portion	5,024	3,740
Billings in excess of recognized revenue	149	—
Total current liabilities	13,811	12,388
Non-current liabilities	2,971	3,227
Total liabilities	16,782	15,615
Commitments and contingencies (Note 9)		
Stockholders' equity:	—	—

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Preferred stock, \$0.00015 par value, 5,000 shares authorized, no shares issued and outstanding		
Common stock, \$0.00015 par value, 70,000 shares authorized: shares issued 37,230 and 36,258, respectively; shares outstanding 31,387 and 31,116, respectively	5	5
Additional paid-in-capital	263,905	248,734
Treasury stock at cost, 5,843 and 5,142 shares, respectively	(44,718 )	(34,048 )
Accumulated deficit	(42,577 )	(52,187 )
Accumulated other comprehensive loss	(1,337 )	(681 )
Total stockholders' equity	175,278	161,823
Total liabilities and stockholders' equity	\$ 192,060	\$ 177,438

*See accompanying Notes to Condensed Consolidated Financial Statements (unaudited).*

**PDF SOLUTIONS, INC.****CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME****(unaudited)****(in thousands, except per share amounts)**

	<b>Three Months Ended September 30, 2015</b>		<b>Nine Months Ended September 30, 2015</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Revenues:				
Design-to-silicon-yield solutions	\$17,246	\$10,860	\$49,557	\$38,871
Gainshare performance incentives	6,632	11,546	24,348	35,231
Total revenues	23,878	22,406	73,905	74,102
Costs of Design-to-silicon-yield solutions:				
Direct costs of Design-to-silicon-yield solutions	\$10,172	\$9,722	\$28,863	\$28,273
Impairment of deferred costs	\$—	\$1,892	\$—	\$1,892
Amortization of acquired technology	80	—	80	—
Total costs of Design-to-silicon-yield solutions	10,252	11,614	28,943	30,165
Gross profit	13,626	10,792	44,962	43,937
Operating expenses:				
Research and development	5,173	3,349	13,698	10,282
Selling, general and administrative	5,665	4,498	15,336	13,487
Amortization of other acquired intangible assets	89	—	89	31
Restructuring charges	—	—	—	57
Total operating expenses	10,927	7,847	29,123	23,857
Income from operations	2,699	2,945	15,839	20,080
Interest and other income (expense), net	64	33	166	(82 )
Income before income taxes	2,763	2,978	16,005	19,998
Income tax provision	1,269	1,217	6,395	7,287
Net income	\$1,494	\$1,761	\$9,610	\$12,711
Net income per share:				
Basic	\$0.05	\$0.06	\$0.31	\$0.41
Diluted	\$0.05	\$0.05	\$0.30	\$0.40
Weighted average common shares:				
Basic	31,516	30,876	31,458	30,648
Diluted	32,106	32,079	32,266	31,975

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Net income	\$1,494	\$1,761	\$9,610	\$12,711
Other comprehensive income:				
Foreign currency translation adjustments, net of tax	(54 )	(542 )	(656 )	(683 )
Comprehensive income	\$1,440	\$1,219	\$8,954	\$12,028

*See accompanying Notes to Condensed Consolidated Financial Statements (unaudited).*

**PDF SOLUTIONS, INC.****CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS****(unaudited)****(in thousands)**

	<b>Nine Months Ended</b>	
	<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>
Operating activities:		
Net income	\$9,610	\$12,711
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,919	1,459
Stock-based compensation expense	7,118	6,259
Accrued contingent earn-out payments	475	—
Impairment of deferred costs	—	1,892
Amortization of acquired intangible assets	169	31
Deferred taxes	1,623	2,985
Loss (gain) on disposal of property and equipment	3	(93 )
Tax withholdings related to net share settlements of restricted stock awards and units	(1,057 )	(855 )
Reversal of allowance for doubtful accounts	(82 )	(81 )
Unrealized loss (gain) on foreign currency forward contract	(4 )	41
Tax benefit related to stock-based compensation expense	1,756	1,235
Excess tax benefit from stock-based compensation	(1,661 )	(1,154 )
Changes in operating assets and liabilities:		
Accounts receivable	6,261	7,877
Prepaid expenses and other assets	(3,378 )	(1,132 )
Accounts payable	(287 )	(768 )
Accrued compensation and related benefits	(1,946 )	(2,413 )
Accrued and other liabilities	609	(334 )
Deferred revenues	796	501
Billings in excess of recognized revenues	149	(343 )
Net cash provided by operating activities	22,073	27,818
Investing activities:		
Purchases of property and equipment	(4,032 )	(3,274 )
Proceeds from the sales of property and equipment	—	135
Payments for business acquisitions, net of cash acquired	(5,152 )	—
Net cash used in investing activities	(9,184 )	(3,139 )
Financing activities:		
Payments on long-term obligations assumed in business acquisition	(347 )	—
Proceeds from exercise of stock options	4,899	3,062
Proceeds from employee stock purchase plan	1,379	1,437
Excess tax benefit from stock-based compensation	1,661	1,154



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Purchases of treasury stock	(9,613 )	(3,566 )
Net cash provided (used) by financing activities	(2,021 )	2,087
Effect of exchange rate changes on cash and cash equivalents	(73 )	(16 )
Net change in cash and cash equivalents	10,795	26,750
Cash and cash equivalents, beginning of period	115,464	89,371
Cash and cash equivalents, end of period	\$126,259	\$116,121
Supplemental disclosure of cash flow information:		
Cash paid during the period for:		
Taxes	\$4,347	\$3,322
Interest	\$16	\$—
Property and equipment received and accrued in accounts payable and accrued and other liabilities	\$268	\$170

*See accompanying Notes to Condensed Consolidated Financial Statements (unaudited).*

**PDF SOLUTIONS, INC.**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**

**1. BASIS OF PRESENTATION**

*Basis of Presentation*

The interim unaudited condensed consolidated financial statements included herein have been prepared by PDF Solutions, Inc. (“the Company”) pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”), including the instructions to the Quarterly Report on Form 10-Q and Article 10 of Regulation S-X. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted. The interim unaudited condensed consolidated financial statements reflect, in the opinion of management, all adjustments necessary (consisting only of normal recurring adjustments), to present a fair statement of results for the interim periods presented. The operating results for any interim period are not necessarily indicative of the results that may be expected for other interim periods or the full fiscal year. The accompanying interim unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto in the Company’s Annual Report on Form 10-K for the year ended December 31, 2014.

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries after the elimination of all significant intercompany balances and transactions.

The condensed consolidated balance sheet at December 31, 2014, has been derived from the audited consolidated financial statements but does not include all disclosures required by accounting principles generally accepted in the United States of America.

*Use of Estimates* — The preparation of financial statements in conformity with generally accepted accounting principles in the United States (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates in these financial statements include revenue recognition for fixed-price solution implementation service contracts, stock-based compensation expense and accounting for income taxes. Actual results could differ from those estimates.

*Revenue Recognition* — The Company derives revenue from two sources: Design-to-silicon-yield solutions and Gainshare performance incentives.

*Design-to-Silicon-Yield Solutions* — Revenue that is derived from Design-to-silicon-yield solutions comes from services and software licenses. The Company recognizes revenue of Design-to-silicon-yield solutions as follows:

The Company generates a significant portion of its Design-to-silicon-yield solutions revenue from fixed-price solution implementation service contracts delivered over a specific period of time. These contracts require reliable estimation of costs to perform obligations and the overall scope of each engagement. Revenue under project-based contracts for solution implementation services is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. Losses on fixed-price solution implementation contracts are recognized in the period when they become probable. Revisions in profit estimates are reflected in the period in which the conditions that require the revisions become known and can be estimated. Revenue under time and materials contracts for solution implementation services are recognized as the services are performed. On occasion, the Company licenses its software products as a component of its fixed-price service contracts. In such instances, the software products are licensed to customers over a specified term of the agreement with support and maintenance to be provided at each customer's option over the license term. The amount of product and service revenue recognized in a given period is affected by the Company's judgment as to whether an arrangement includes multiple deliverables and, if so, the Company's determination of the fair value of each deliverable. In general, vendor-specific objective evidence of selling price ("VSOE") does not exist for the Company's solution implementation services and software products and because the Company's services and products include our unique technology, the Company is not able to determine third-party evidence of selling price ("TPE"). Therefore, in such circumstances the Company uses best estimated selling prices ("BESP") in the allocation of arrangement consideration. In determining BESP, the Company applies significant judgment as the Company's weighs a variety of factors, based on the facts and circumstances of the arrangement. The Company typically arrives at BESP for a product or service that is not sold separately by considering company-specific factors such as geographies, internal costs, gross margin objectives, pricing practices used to establish bundled pricing, and existing portfolio pricing and discounting. After fair value is established for each deliverable, the total transaction amount is allocated to each deliverable based upon its relative fair value. Fees allocated to solution implementation services are recognized using the cost-to-cost percentage of completion method of contract accounting. Fees allocated to software and related support and maintenance are recognized under software revenue recognition guidance. The Company defers certain pre-contract costs incurred for specific anticipated contracts. Deferred costs consist primarily of direct costs to provide solution implementation services in relation to the specific anticipated contracts. The Company recognizes such costs as a component of cost of revenues, the timing of which is dependent upon persuasive evidence of contract arrangement assuming all other revenue recognition criteria are met. At the end of reporting period, the Company evaluates its deferred costs for their probable recoverability. The Company recognizes impairment of deferred costs when it is determined that the costs no longer have future benefits and are no longer recoverable.

The Company also licenses its software products separately from its solution implementations. For software license arrangements that do not require significant modification or customization of the underlying software, software license revenue is recognized under the residual method when (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the fee is fixed or determinable, (4) collectability is probable, and (5) the arrangement does not require services that are essential to the functionality of the software. When arrangements include multiple elements such as support and maintenance, consulting (other than for its fixed price solution implementations), installation, and training, revenue is allocated to each element of a transaction based upon its fair value as determined by the Company's VSOE and such services are recorded as services revenue. VSOE for maintenance is generally established based upon negotiated renewal rates while VSOE for consulting, installation, and training services is established based upon the Company's customary pricing for such services when sold separately. Revenue for software licenses with extended payment terms is not recognized in excess of amounts due. For software license arrangements that require significant modification or customization of the underlying software, the software license revenue is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting, and such revenue is recorded as services revenue.

**Gainshare Performance Incentives** — When the Company enters into a contract to provide yield improvement services, the contract usually includes two components: (1) a fixed fee for performance by the Company of services delivered over a specific period of time; and (2) a Gainshare performance incentive component where the customer may pay a contingent variable fee, usually after the fixed fee period has ended. Revenue derived from Gainshare performance incentives represents profit sharing and performance incentives earned contingent upon the Company's customers reaching certain defined operational levels established in related solution implementation service contracts. Gainshare performance incentives periods are usually subsequent to the delivery of all contractual services and therefore have no cost to the Company. Due to the uncertainties surrounding attainment of such operational levels, the Company recognizes Gainshare performance incentives revenue (to the extent of completion of the related solution implementation contract) upon receipt of performance reports or other related information from the customer supporting the determination of amounts and probability of collection.

## **2. RECENT ACCOUNTING PRONOUNCEMENTS**

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. ("ASU") 2014-09, Revenue from Contracts with Customers, as a new Topic, Accounting Standards Codification ("ASC") Topic 606. The new revenue recognition standard provides a five-step analysis of transactions to determine when and how revenue is recognized. The core principle is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This new standard is effective for annual periods beginning after December 15, 2016, including interim periods within that reporting period, and shall be applied retrospectively to each period presented or as a cumulative-effect adjustment as of the date of adoption. In August 2015, the FASB issued ASU 2015-14, Revenue from Contracts with Customers (Topic 606), deferring the effective date of ASU 2014-09 by one year. The provision of ASU 2014-09 are effective for annual periods beginning after December 15, 2017, including interim periods within that reporting period. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. We are currently assessing the adoption date and potential impact of adopting ASU 2014-09 on our financial statements and related disclosures.

In August 2014, the FASB issued ASU No. 2014-15, "Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern". The new standard provides guidance around management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on our financial statements.

In April 2015, the FASB issued ASU No. 2015-05, "Intangibles - Goodwill and Other Internal-Use Software". The amendments in this update provide guidance to customers about whether a cloud computing arrangement includes a software license, and if so, how the software license element of the arrangement should be accounted for by the customer. The new standard is effective for annual period ending after December 15, 2015, and all reporting periods thereafter. The adoption of this standard is not expected to have a material impact on our financial statements.

In September 2015, the FASB issued ASU No. 2015-16, "Business Combinations: Simplifying the Accounting for Measurement-Period Adjustments". The new standard simplifies how adjustments are made to provisional amounts recognized in a business combination during the measurement period. We are required to adopt ASU 2015-16 on January 1, 2016. We early adopted ASU 2015-16 in September 2015. The effect of early adoption of ASU 2015-16 on our financial position, results of operations, and disclosures is immaterial.

### **3. BUSINESS COMBINATIONS**

On July 17, 2015, the Company completed its acquisition of Syntricity, Inc. ("Syntricity"), a provider of a hosted solution for characterization and yield management by acquiring all issued and outstanding common shares of Syntricity, pursuant to an Agreement and Plan of Merger dated July 9, 2015 between the Company and Syntricity. The Company believes that the acquisition will expand the overall capabilities of its manufacturing software solutions offerings. The aggregate consideration paid for the acquisition consisted of approximately \$5.2 million in cash, net of cash acquired of \$112,000. Of the cash consideration paid, \$750,000 is being held in escrow to secure indemnification obligations. The Company also agreed to pay earn-out consideration of up to \$2.5 million in cash through July 17, 2017, contingent upon the achievement of certain financial and non-financial targets. Out of a total of \$2.5 million, \$812,000 will be paid to the former shareholders of Syntricity if and when the targets are met. The Company has determined that such contingent consideration requires Level 3 classification, because the liabilities have no public active market or observable inputs. As of the acquisition date and September 30, 2015, the Company has not accrued any additional consideration payable to the former shareholders of Syntricity based on the probability of achievement of the earn-out targets.

Additionally, the remaining \$1.7 million will be paid to employees and considered as a post combination expense if and when the financial and non-financial targets and service conditions are met. As of September 30, 2015, the Company has recognized \$475,000 as a post combination expense in its condensed consolidated statement of operations.

The fair value assigned to identifiable intangible assets acquired was based on estimates and assumptions made by management at the time of acquisition. As additional information becomes available, such as finalization of tax related matters, the Company may revise its preliminary purchase price allocation. The excess of purchase consideration over the fair value of net tangible and identifiable intangible assets acquired was recorded as goodwill. The goodwill recorded from this acquisition represents business benefits the Company anticipates realizing from optimizing resources and new and expanded opportunities. The goodwill balance is not deductible for U.S. income tax purposes. The Company incurred \$588,000 in acquisition-related costs which were recorded in general and administrative expenses for the nine months ended September 30, 2015.

The results of operations and the provisional fair values of the acquired assets and liabilities assumed have been included in the accompanying consolidated financial statements since the Syntricity acquisition date. Revenues and

expenses from Syntricity were not material for the three and nine months ended September 30, 2015. Pro forma results of operations have not been presented because the effect of the acquisition was not material to our financial results.

The following table summarizes the preliminary allocation of the purchase price to the fair value of the tangible and intangible assets acquired and liabilities assumed as of the acquisition date:

At September 30, 2015:

	(in thousands)
<b>Consideration</b>	
Cash	\$ 5,264
Contingent consideration arrangement	-
<b>Fair value of total consideration transferred</b>	<b>\$ 5,264</b>
<b>Recognized amounts of identifiable assets acquired and liabilities assumed</b>	
Cash and cash equivalents	112
Accounts receivable and other assets	208
Deferred tax assets, net	261
Identifiable intangible assets	5,000
Property and equipment	378
Accounts payable and other liabilities	(1,165 )
<b>Total identifiable net assets</b>	<b>4,794</b>
<b>Goodwill</b>	<b>470</b>
	<b>\$ 5,264</b>

Goodwill is not amortized, but the Company will perform an annual impairment assessment of its goodwill during the fourth quarter of each calendar year or more frequently if required to determine if any events or circumstances exist, such as an adverse change in business climate or a decline in the overall industry demand, that would indicate that it would more likely than not reduce the fair value of a reporting unit below its carrying amount, including goodwill. If events or circumstances do not indicate that the fair value of a reporting unit is below its carrying amount, then goodwill is not considered to be impaired and no further testing is required. If further testing is required, the Company performs a two-step process. The first step involves comparing the fair value of its reporting unit to its carrying value, including goodwill. If the carrying value of the reporting unit exceeds its fair value, the second step of the test is performed by comparing the carrying value of the goodwill in the reporting unit to its implied fair value. An impairment charge is recognized for the excess of the carrying value of goodwill over its implied fair value. For the purpose of impairment testing, the Company has determined that it has one reporting unit. There has been no impairment of goodwill for any periods presented.

Intangible assets consist of developed technology, customer relationships, trademarks and order backlog. The values assigned to intangibles are based on estimates and judgments regarding expectations for success and life cycle of intangibles acquired. Acquired intangible assets with definite lives are amortized on a straight-line basis over the remaining estimated economic life of the underlying intangibles. The Company reviews its definite lived long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of a long-lived

asset may not be recoverable. Recoverability of an asset group is measured by comparing its carrying amount to the expected future undiscounted cash flows that the asset group is expected to generate. If it is determined that an asset group is not recoverable, an impairment loss is recorded in the amount by which the carrying amount of the asset group exceeds its fair value. There has been no impairment of long-lived assets for any periods presented.



**4. BALANCE SHEET COMPONENTS**

Accounts receivable include amounts that are unbilled at the end of the period. Unbilled accounts receivable are determined on an individual contract basis and were \$11.7 million and \$9.7 million as of September 30, 2015, and December 31, 2014, respectively.

Property and equipment consists of (in thousands):

	<b>September 30, 2015</b>	<b>December 31, 2014</b>
Property and equipment, net:		
Computer equipment	\$ 8,952	\$ 9,817
Software	1,603	3,369
Furniture, fixtures and equipment	827	756
Leasehold improvements	1,131	1,127
Test equipment	7,123	6,401
Construction-in-progress	4,702	2,405
	24,338	23,875
Less: accumulated depreciation	(12,976 )	(15,043 )
Total	\$ 11,362	\$ 8,832

Depreciation and amortization expense was \$0.7 million and \$0.5 million for the three months ended September 30, 2015 and 2014, respectively. Depreciation and amortization expense was \$1.9 million and \$1.5 million for the nine months ended September 30, 2015 and 2014, respectively.

As of September 30, 2015 and December 31, 2014, the carrying amount of goodwill was \$470,000 and zero, respectively. The goodwill balance as of September 30, 2015 was the result of the acquisition of Syntricity. The following is a rollforward of the Company's goodwill balance (in thousands):

	<b>September 30, 2015</b>
Balance as of December 31, 2014	-
Add: Goodwill from acquisition	470
Balance as of September 30, 2015	470

Intangible assets balance was \$4.8 million and zero as of September 30, 2015 and December 31, 2014, respectively. The balance as of September 30, 2015 consisted of \$5.0 million of intangible assets acquired as a result of the acquisition of Syntricity. Refer to Note 3 "Business Combinations" for additional information. The following tables provide information relating to the intangible assets acquired from the Syntricity acquisition within the Company's consolidated balance sheet as of September 30, 2015 (in thousands):

	Amortization Period (Years)	September 30, 2015		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired identifiable intangibles:				
Customer relationships	9	\$2,500	\$ (58 )	\$ 2,442
Developed Technology	6	2,300	(80 )	2,220
Tradename	2	100	(10 )	90
Backlog	1	100	(21 )	79
Total		\$5,000	\$ (169 )	\$ 4,831

The weighted average amortization period for acquired identifiable intangible assets was 7.16 years as of September 30, 2015. For the three months ended September 30, 2015 and 2014, intangible asset amortization expense was \$169,000 and zero, respectively. For the nine months ended September 30, 2015 and 2014, intangible asset amortization expense was \$169,000 and \$31,000, respectively. The Company expects annual amortization of acquired identifiable intangible assets to be as follows (in thousands):

**Year Ending December 31,**

2015 (remaining 3 months)	\$203
2016	765
2017	688
2018	661
2019	661
Thereafter	1,853
Total future amortization expense	\$4,831

Intangible assets are amortized over their useful lives unless these lives are determined to be indefinite. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. During the nine months ended September 30, 2015, there were no indicators of impairment related to the Company's intangible assets.

Deferred costs balance was zero and \$0.1 million as of September 30, 2015 and December 31, 2014, respectively. During the three months ended September 30, 2014, the Company recorded an impairment loss of \$1.9 million of

deferred pre-contract costs for two contracts with a customer as it was determined that the costs were no longer recoverable. The impairment charges were recorded in the impairment of deferred costs in the accompanying condensed consolidated statements of operations and comprehensive income.

## 5. STOCKHOLDERS' EQUITY

Stock-based compensation is estimated at the grant date based on the award's fair value and is recognized on a straight-line basis over the vesting periods, generally four years. Stock-based compensation expenses before taxes related to the Company's stock plans and employee stock purchase plan were allocated as follows (in thousands):

	<b>Three Months</b>		<b>Nine Months</b>	
	<b>Ended</b>		<b>Ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Cost of Design-to-silicon yield-solutions	\$1,039	\$947	\$2,840	\$2,467
Research and development	617	426	1,618	1,230
Selling, general and administrative	908	853	2,660	2,562
Stock-based compensation expenses	\$2,564	\$2,226	\$7,118	\$6,259

On September 30, 2015, the Company had the following stock-based compensation plans:

*Stock Plans* — At the annual meeting of stockholders on November 16, 2011, the Company's stockholders approved the 2011 Stock Incentive Plan, which was first amended and restated at the 2013 annual meeting of stockholders on May 28, 2013, when the Company's stockholders approved the First Amended and Restated 2011 Stock Incentive Plan and then subsequently amended it at the 2014 annual meeting of stockholders on May 27, 2014, when the Company's stockholders approved the Second Amended and Restated 2011 Incentive Plan (as amended, the "2011 Plan"). Under the 2011 Plan, the Company may award stock options, stock appreciation rights, stock grants or stock units covering shares of the Company's common stock to employees, directors, non-employee directors and contractors. The aggregate number of shares reserved for awards under this plan is 6,550,000 shares, plus up to 3,500,000 shares previously issued under the 2001 Plan that are forfeited or repurchased by the Company or shares subject to awards previously issued under the 2001 Plan that expire or that terminate without having been exercised or settled in full on or after November 16, 2011. In case of awards other than options or stock appreciation rights, the aggregate number of shares reserved under the plan will be decreased at a rate of 1.33 shares issued pursuant to such awards. The exercise price for stock options must generally be at prices no less than the fair market value at the date of grant. Stock options generally expire ten years from the date of grant and become vested and exercisable over a four-year period.

In 2001, the Company adopted a 2001 Stock Plan (the "2001 Plan"). In 2003, in connection with its acquisition of IDS Systems Inc., the Company assumed IDS' 2001 Stock Option / Stock Issuance Plan (the "IDS Plan"). Both the 2001 Plan and the IDS Plan expired in 2011. Stock options granted under the 2001 and IDS Plans generally expire ten years from the date of grant and become vested and exercisable over a four-year period. Although no new awards may be granted under the 2001 or IDS Plans, awards made under the 2001 and IDS Plans that are currently outstanding remain subject to the terms of each plan, as applicable.

The Company estimated the fair value of share-based awards granted under the Stock Plan during the period using the Black-Scholes-Merton option-pricing model with the following weighted average assumptions, resulting in the following weighted average fair values:

	<b>Three Months</b>		<b>Nine Months</b>	
	<b>Ended</b>		<b>Ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Expected life (in years)	4.51	4.58	4.51	4.58
Volatility	45.56%	44.88%	45.96%	43.45%
Risk-free interest rate	1.38 %	1.63 %	1.36 %	1.55 %
Expected dividend	—	—	—	—
Weighted average fair value per share of options granted during the period	\$5.48	\$7.54	\$5.85	\$7.44

As of September 30, 2015, 7.0 million shares of common stock were reserved to cover stock-based awards under the 2011 Plan, of which 3.1 million shares were available for future grant. The number of shares reserved and available under the 2011 Plan includes 0.4 million shares that were subject to awards previously made under the 2001 Plan and were forfeited, expired or repurchased by the Company after adoption of the 2011 Plan through September 30, 2015. As of September 30, 2015, there were no outstanding awards that had been granted outside of the 2011, 2001 or the IDS Plans (collectively, the "Stock Plans").

Stock option activity under the Company's Stock Plans during the nine months ended September 30, 2015, was as follows:

	<b>Number of Options (in thousands)</b>	<b>Weighted Average Exercise Price per Share</b>	<b>Weighted Average Remaining Contractual Term (years)</b>	<b>Aggregate Intrinsic Value (in thousands)</b>
Outstanding, January 1, 2015	2,352	\$ 7.65		
Granted (weighted average fair value of \$5.85 per share)	72	\$ 14.84		
Exercised	(634 )	\$ 7.73		
Canceled	(17 )	\$ 12.58		
Expired	(3 )	\$ 12.21		
Outstanding, September 30, 2015	1,770	\$ 7.86	5.36	\$ 5,045
Vested and expected to vest, September 30, 2015	1,756	\$ 7.81	5.33	\$ 5,042
Exercisable, September 30, 2015	1,514	\$ 7.20	4.96	\$ 4,856

The aggregate intrinsic value in the table above represents the total intrinsic value based on the Company's closing stock price of \$10 per share as of September 30, 2015. The total intrinsic value of options exercised during the nine months ended September 30, 2015, was \$6.1 million.

As of September 30, 2015, there was \$1.2 million of total unrecognized compensation cost related to unvested stock options. That cost is expected to be recognized over a weighted average period of 1.7 years. The total fair value of shares vested during the nine months ended September 30, 2015, was \$1.2 million.

Nonvested restricted stock units activity during the nine months ended September 30, 2015, was as follows:

<b>Shares (in thousands)</b>	<b>Weighted Average Grant Date</b>
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		<b>Fair Value Per  Share</b>
Nonvested, January 1, 2015	941	\$ 17.38
Granted	699	\$ 16.08
Vested	(228	) \$ 15.60
Forfeited	(32	) \$ 17.46
Nonvested, September 30, 2015	1,380	\$ 17.01

As of September 30, 2015, there was \$18.6 million of total unrecognized compensation cost related to nonvested restricted stock units. That cost is expected to be recognized over a weighted average period of 2.8 years.

*Employee Stock Purchase Plan* — In July 2001, the Company adopted a ten-year Employee Stock Purchase Plan (as amended, “Purchase Plan”) under which eligible employees can contribute up to 10% of their compensation, as defined in the Purchase Plan, towards the purchase of shares of PDF common stock at a price of 85% of the lower of the fair market value at the beginning of the offering period or the end of the purchase period. The Purchase Plan consists of twenty-four-month offering periods with four six-month purchase periods in each offering period. Under the Purchase Plan, on January 1 of each year, the number of shares reserved for issuance will automatically increase by the lesser of (1) 675,000 shares, (2) 2% of the Company’s outstanding common stock on the last day of the immediately preceding year, or (3) the number of shares determined by the board of directors. At the annual meeting of stockholders on May 18, 2010, the Company’s stockholders approved an amendment to the Purchase Plan to extend it through May 17, 2020.

The Company estimated the fair value of purchase rights granted under the Purchase Plan during the period using the Black-Scholes-Merton option-pricing model with the following weighted average assumptions, resulting in the following weighted average fair values:

	<b>Nine Months</b>	
	<b>Ended</b>	
	<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>
Expected life (in years)	1.25	1.25
Volatility	50.12 %	33.46 %
Risk-free interest rate	0.34 %	0.21 %
Expected dividend	—	—
Weighted average fair value of purchase rights granted under the Purchase Plan	\$5.51	\$6.44

During the three months ended September 30, 2015 and 2014, a total of 59,000 and 62,000 shares, respectively, were issued at a weighted-average purchase price of \$11.91 and \$13.06 per share. During the nine months ended September 30, 2015 and 2014, a total of 110,000 and 114,000 shares, respectively, were issued at a weighted-average purchase price of \$12.57 and \$12.62 per share, respectively, under the Purchase Plan. For the three-month periods ended September 30, 2015 and 2014, the Purchase Plan compensation expense was \$0.2 million and \$0.1 million, respectively. For the nine-month periods ended September 30, 2015 and 2014, the Purchase Plan compensation expense was both \$0.5 million. As of September 30, 2015, there was \$1.3 million of unrecognized compensation cost related to the Purchase Plan. That cost is expected to be recognized over a weighted average period of 1.83 years. As of September 30, 2015, 2.8 million shares were available for future issuance under the Purchase Plan.

*Stock Repurchase Program* —On October 21, 2014, the Board of Directors adopted a program, effective immediately, to repurchase up to \$25.0 million of the Company's common stock both on the open market and in privately negotiated transactions over the next two years. During the nine months ended September 30, 2015, the Company repurchased 636,996 shares of its common stock under this program. As of September 30, 2015, 636,996 shares had been repurchased at an average price of \$15.09 per share under this program for a total purchase of \$9.6 million, and \$15.4 million remained available for future repurchases.

## 6. INCOME TAXES

Income tax provision decreased \$0.9 million for the nine months ended September 30, 2015, to \$6.4 million as compared to an income tax provision of \$7.3 million for the nine months ended September 30, 2014. The Company's effective tax rate was 39.96% and 36.44% for the nine months ended September 30, 2015, and September 30, 2014, respectively. The Company's effective tax rate increased in the nine months ended September 30, 2015, as compared to the same period in 2014, primarily due to the lower reversals of certain unrecognized tax benefits upon statute of



limitation lapses, estimated nondeductible acquisition expenses, and unfavorable changes to New York State Tax apportionment rules. The income tax provision for the nine months ended September 30, 2015 was higher than the provision at the statutory rate primarily due to foreign and state taxes and changes in unrecognized tax benefits.

The Company's total amount of unrecognized tax benefits, excluding interest and penalties, as of September 30, 2015, was \$10.5 million, of which \$6.1 million, if recognized, would decrease the Company's effective tax rate. The Company's total amount of unrecognized tax benefits, excluding interest and penalties, as of December 31, 2014, was \$10.4 million, of which \$6.3 million, if recognized, would affect the Company's effective tax rate. As of September 30, 2015, the Company has recorded unrecognized tax benefits of \$2.4 million, including interest and penalties, as long-term taxes payable in its condensed consolidated balance sheet. The remaining \$8.5 million has been recorded net of our deferred tax assets, of which \$4.4 million is subject to a full valuation allowance.

As of September 30, 2015, the Company believes that its deferred tax assets are "more likely than not" to be realized with the exception of California R&D tax credits that have not met the "more likely than not" realization threshold criteria because on an annual basis and pursuant to current law, the Company generates more California credits than California tax. As a result, at September 30, 2015, the excess California R&D tax credits continue to be subject to a full valuation allowance. In the event the Company concludes at a future financial reporting period that there has been a change in its ability to realize the California R&D credit deferred tax assets, and it is at such time no longer "more likely than not" that the Company will realize the tax credits before applicable expiration dates, the Company's tax provision will increase in the period in which the Company makes such determination.

The Company conducts business globally and, as a result, files numerous consolidated and separate income tax returns in the U.S. federal, various state and foreign jurisdictions. Because the Company used some of the tax attributes carried forward from previous years to tax years that are still open, statutes of limitation remain open for all tax years to the extent of the attributes carried forward into tax year 2002 for federal and California tax purposes. The State of New York is currently conducting an audit of the Company's prior income tax returns. The Company is not subject to income tax examinations in any other of its major foreign subsidiaries' jurisdictions.

**7. NET INCOME PER SHARE**

Basic net income per share is computed by dividing net income by weighted average number of common shares outstanding for the period (excluding outstanding stock options and shares subject to repurchase). Diluted net income per share is computed using the weighted-average number of common shares outstanding for the period plus the potential effect of dilutive securities which are convertible into common shares (using the treasury stock method), except in cases in which the effect would be anti-dilutive. Under the treasury stock method, the amount that the employee must pay for exercising stock options, the amount of compensation cost for future service that the Company has not yet recognized, and the amount of the tax benefits that would be recorded in additional paid-in capital when the award becomes deductible are assumed to be used to repurchase shares. The following is a reconciliation of the numerators and denominators used in computing basic and diluted net income per share (in thousands except per share amount):

	<b>Three Months</b>		<b>Nine Months</b>	
	<b>Ended</b>		<b>Ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Numerator:				
Net income	\$1,494	\$1,761	\$9,610	\$12,711
Denominator:				
Basic weighted average common shares outstanding	31,516	30,876	31,458	30,648
Dilutive effect of equity incentive plans	590	1,203	808	1,327
Diluted weighted average common shares outstanding	32,106	32,079	32,266	31,975
Net income per share:				
Basic	\$0.05	\$0.06	\$0.31	\$0.41
Diluted	\$0.05	\$0.05	\$0.30	\$0.40

The following table sets forth potential shares of common stock that are not included in the diluted net income per share calculation above because to do so would be anti-dilutive for the periods indicated (in thousands):

	<b>Three Months</b>		<b>Nine Months</b>	
	<b>Ended September 30,</b>		<b>Ended September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Outstanding options	228	34	116	25
Nonvested restricted stock units	1,231	—	660	—
Employee Stock Purchase Plan	276	30	252	40
Total	1,735	64	1,028	65

## 8. CUSTOMER AND GEOGRAPHIC INFORMATION

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or group, in deciding how to allocate resources and in assessing performance.

The Company's chief operating decision maker, the chief executive officer, reviews discrete financial information presented on a consolidated basis for purposes of regularly making operating decisions and assessing financial performance. Accordingly, the Company considers itself to be in one operating segment, specifically the licensing and implementation of yield improvement solutions for companies designing and/or manufacturing integrated circuits.

The Company had revenues from individual customers in excess of 10% of total revenues as follows:

<b>Customer</b>	<b>Three Months</b>		<b>Nine Months</b>	
	<b>Ended September 30,</b>		<b>Ended September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
A	60 %	56 %	52 %	50 %
B	*	13 %	*	16 %

C \* 11 % 12 % 12 %

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\* represents less than 10%

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The Company had gross accounts receivable from individual customers in excess of 10% of gross accounts receivable as follows:

Customer	September	December		
	30,	31,		
	2015	2014		
A	70	51	%	%
B	0	21	%	%

\* represents less than 10%

Revenues from customers by geographic area based on the location of the customers' work sites are as follows (in thousands):

	Three Months Ended September 30,		2014			
	2015		2014			
	Percentage		Percentage			
	Revenues of	Revenues	Revenues of	Revenues		
United States	\$12,795	54	% \$10,528	47	%	
Germany	5,017	21	7,913	35		
South Korea	764	3	1,304	6		
Taiwan	2,469	10	626	3		
Rest of the world	2,833	12	2,035	9		
Total revenue	\$23,878	100	% \$22,406	100	%	

	Nine Months Ended September 30,		2014			
	2015		2014			
	Percentage		Percentage			
	Revenues of	Revenues	Revenues of	Revenues		
United States	\$34,545	47	% \$32,079	43	%	
Germany	17,626	24	26,046	35		
South Korea	8,309	11	4,806	6		

Taiwan	5,747	8	2,954	4	
Rest of the world	7,678	10	8,217	12	
Total revenue	\$73,905	100	% \$74,102	100	%

Long-lived assets, net by geographic area are as follows (in thousands):

	<b>September 30,</b>	<b>December 31,</b>
	<b>2015</b>	<b>2014</b>
United States	\$ 10,779	\$ 8,240
Rest of the world	583	592
Total long-lived assets, net	\$ 11,362	\$ 8,832

## 9. FAIR VALUE MEASUREMENTS

Fair value is the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The multiple assumptions used to value financial instruments are referred to as inputs, and a hierarchy for inputs used in measuring fair value is established, that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs reflect assumptions market participants would use in pricing an asset or liability based on market data obtained from independent sources while unobservable inputs reflect a reporting entity's pricing based upon its own market assumptions. These inputs are ranked according to a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels.

Level 1 - Inputs are quoted prices in active markets for identical assets or liabilities.

Level 2 - Inputs are quoted prices for similar assets or liabilities in an active market, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable and market-corroborated inputs which are derived principally from or corroborated by observable market data.

Level 3 - Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable.

The following table represents the Company's assets measured at fair value on a recurring basis as of September 30, 2015, and the basis for that measurement (in thousands):

Assets	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)			Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		Markets	Observable	Inputs	Inputs	
Money market mutual funds	\$26,365	\$26,365	\$	\$	\$	\$

The following table represents the Company's assets measured at fair value on a recurring basis as of December 31, 2014, and the basis for that measurement (in thousands):

Assets	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)			Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		Markets	Observable	Inputs	Inputs	

**Active Inputs (Level 3)**

**Markets (Level 2)**

**for**

**Identical**

**Assets**

**(Level 1)**

Money market mutual funds	\$26,356	\$26,356	\$	—	\$	—
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The Company enters into foreign currency forward contracts to reduce the exposure to foreign currency exchange rate fluctuations on certain foreign currency denominated monetary assets and liabilities, primarily on third-party accounts payables and intercompany balances. The primary objective of the Company’s hedging program is to reduce volatility of earnings related to foreign currency exchange rate fluctuations. The counterparty to these foreign currency forward contracts is a large global financial institution that the Company believes is creditworthy, and therefore, the Company believes the credit risk of counterparty nonperformance is not significant. These foreign currency forward contracts are not designated for hedge accounting treatment. Therefore, the change in fair value of these contracts is recorded into earnings as a component of other income (expense), net, and offsets the change in fair value of the foreign currency denominated assets and liabilities, which is also recorded in other income (expense), net. For the three months ended September 30, 2015 and 2014, the Company recognized a realized loss of \$15,000 and \$0.5 million on the contracts, respectively, which was recorded in other income (expense), net in the Company’s Statement of Operations and Comprehensive Income. For the nine months ended September 30, 2015 and 2014, the Company recognized a realized loss of \$0.6 million and \$0.6 million on the contracts, respectively, which was recorded in other income (expense), net in the Company’s Statement of Operations and Comprehensive Income.

The Company carries these derivatives financial instruments on its Consolidated Balance Sheets at their fair values. The Company’s foreign currency forward contracts are classified as Level 2 because it is not actively traded and the valuation inputs are based on quoted prices and market observable data of similar instruments. As of September 30, 2015, the Company had one outstanding forward contract with a notional amount of \$6.8 million and recorded \$46,000 other current liabilities and an unrealized loss of \$46,000 associated with this outstanding forward contract. As of December 31, 2014, the Company had one outstanding forward contract with a notional amount of \$6.7 million and had recorded \$50,000 other current liabilities and an unrealized loss of \$50,000 associated with the outstanding forward contract.



**10. COMMITMENTS AND CONTINGENCIES***Leases*

The Company leases administrative and sales offices and certain equipment under noncancelable operating leases, which contain various renewal options and, in some cases, require payment of common area costs, taxes and utilities. These operating leases expire at various times through 2019. Rent expense was \$0.5 million for both the three months ended September 30, 2015 and 2014. Rent expense was \$1.6 million and \$1.5 million for the nine months ended September 30, 2015 and 2014, respectively.

Future minimum lease payments under noncancelable operating leases at September 30, 2015, are as follows (in thousands):

<b>Year Ending December 31,</b>	<b>Amount</b>
2015 (remaining three months)	\$ 504
2016	1,856
2017	1,418
2018	808
2019	73
Thereafter	80
Total future minimum lease payments	\$ 4,739

*Litigation* — From time to time, the Company is subject to various claims and legal proceedings that arise in the ordinary course of business. The Company accrues for losses related to litigation when a potential loss is probable and the loss can be reasonably estimated in accordance with FASB requirements. During the reported period, the Company was not party to any material legal proceedings, thus no loss was probable and no amount was accrued at September 30, 2015.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations****Forward-Looking Statements**

The following discussion of our financial condition and results of operations contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical fact may be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may,” “could,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “target” or “continue,” the negative effect of terms like these or other similar expressions. Any statement concerning future financial performance (including future revenues, earnings or growth rates), ongoing business strategies or prospects, and possible actions taken by us or our subsidiaries, which may be provided by us are also forward-looking statements. These forward-looking statements are only predictions. Forward-looking statements are based on current expectations and projections about future events and are inherently subject to a variety of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from those anticipated or projected. All forward-looking statements included in this document are based on information available to us on the date of filing and we further caution investors that our business and financial performance are subject to substantial risks and uncertainties. We assume no obligation to update any such forward-looking statements. In evaluating these statements, you should specifically consider various factors, including the risk factors set forth in Item 1A of this Quarterly Report on Form 10-Q as well as in Item 1. “Business” and Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the year ended December 31, 2014, filed with the Securities and Exchange Commission on March 3, 2015. All references to “we”, “us”, “our”, “PDF”, “PDF Solutions” or “the Company” refer to PDF Solutions, Inc.

## Overview

We analyze our customers’ IC design and manufacturing processes to identify, quantify, and correct the issues that cause yield loss to improve our customers’ profitability by improving time-to-market, increasing yield and reducing total design and manufacturing costs. We package our solutions in various ways to meet our customers’ specific business and budgetary needs, each of which provides us various revenue streams. We receive a mix of fixed fees and variable, performance-based fees for the vast majority of our yield improvement solutions. The fixed fees are typically reflective of the length of time and the resources needed to characterize a customer’s manufacturing process and receive preliminary results of proposed yield improvement suggestions. The variable fee, or what we call Gainshare, usually depends on our achieving certain yield targets by a deadline. Variable fees are currently typically tied to wafer volume on the node size of the manufacturing facility where we performed the yield improvement solutions. We receive license fees and service fees for related installation, integration, training, and maintenance and support services for our software that we license on a stand-alone basis.

## Recent Development

On July 17, 2015, we completed our acquisition of Syntricity, Inc. (“Syntricity”), a provider of a hosted solution for characterization and yield management by acquiring all issued and outstanding common shares of Syntricity, pursuant to an Agreement and Plan of Merger dated July 9, 2015 between us and Syntricity. We believe that the acquisition will expand the overall capabilities of our manufacturing software solutions offerings. The aggregate consideration paid for the acquisition consisted of approximately \$5.2 million in cash, net of cash acquired of \$112,000. Of the cash consideration paid, \$750,000 will be held in escrow to secure indemnification obligations. We also agreed to pay earn-out consideration of up to \$2.5 million in cash through June 30, 2016, contingent upon the achievement of certain financial and non-financial targets. Out of a total of \$2.5 million, \$812,000 will be paid to the former shareholders of Syntricity if and when the targets are met. Additionally, the remaining \$1.7 million will be paid to employees and considered as a post combination expense if and when the financial and non- financial targets and service conditions are met.

## Industry Trend

Consistent with the trend since 2010, we expect that the largest logic foundries will continue significant investments in leading edge nodes and capacity in 2015. Leading foundries continue to invest in new technologies such as multi-patterned lithography and 3-D transistor architecture, which provide opportunities to increase our business.

The capacity utilization on 28nm, however, declined during the first nine months of 2015 according to the foundry volume leader. We expect that it will remain low through the remainder of 2015, which would have a negative impact on our gainshare revenues.

Generally, the demand for consumer electronics and communications devices continues to drive technological innovation in the semiconductor industry as the need for products with greater performance, lower power consumption, reduced costs and smaller size continues to grow with each new product generation. In addition, advances in computing systems and mobile devices have fueled demand for higher capacity memory chips. To meet these demands, IC manufacturers and designers are constantly challenged to improve the overall performance of their ICs by designing and manufacturing ICs with more embedded applications to create greater functionality while lowering cost per transistor. As a result, both logic and memory manufacturers have migrated to more and more advanced manufacturing nodes, capable of integrating more devices with higher performance, higher density, and lower power. As this trend continues, companies will continually be challenged to improve process capabilities to optimally produce ICs with minimal random and systematic yield loss, which is driven by the lack of compatibility between the design and its respective manufacturing process. We believe that as volume production of deep submicron ICs continues to grow, the difficulties of integrating IC designs with their respective processes and ramping new manufacturing processes will create a greater need for products and services that address the yield loss and escalating cost issues the semiconductor industry is facing today and will face in the future.

## Customer Contracts

Although a substantial portion of our total revenues are concentrated in a small number of customers, the total revenues for each of these customers in any period is the result of Design-to-silicon-yield solutions and Gainshare performance incentives revenues recognized in the period under multiple, separate contracts, with no interdependent performance obligations. These contracts were all entered into in the ordinary course of our business and contain general terms and conditions that are standard across most of our yield improvement solutions customers, including providing services typically targeted to one manufacturing process node, for example the 28 or 20 nanometer node. Fluctuations in future results may occur if any of these customers renegotiate pre-existing contractual commitments due to adverse changes in their own business or, in the case of one time and materials contract, if the customer takes advantage of contractual provisions that permit the suspension of contracted work for a period if their business experiences a financial hardship. See the additional discussion in Part I, Item 1, "Customers," on page 9 of our Annual Report on Form 10-K for the year ended December 31, 2014, and in Item 1A, "Risk Factors," on pages 24 through 30 of our Quarterly Report on Form 10-Q for the three months ended March 31, 2015, for related information on the risks associated with customer concentration and Gainshare performance incentives revenue.

## Financial Highlights

Financial highlights for the three months ended September 30, 2015, were as follows:

Total revenues for the three months ended September 30, 2015, were \$23.9 million, an increase of \$1.5 million, or 7%, compared to \$22.4 million for the three months ended September 30, 2014. Design-to-silicon-yield solutions revenue for the three months ended September 30, 2015, was \$17.3 million, an increase of \$6.4 million, or 59%, when compared to Design-to-silicon yield solutions revenue of \$10.9 million for the three months ended September 30, 2014. The increase in Design-to-silicon-yield solutions was primarily the result of increased bookings. Gainshare performance incentives revenue for the three months ended September 30, 2015, was \$6.6 million, a decrease of \$4.9 million, or 43%, compared to \$11.5 million for the three months ended September 30, 2014. The decrease in revenue from Gainshare performance incentives was primarily the result of lower net volumes reported at older nodes, primarily related to 32nm and 28nm engagements.

Net income for the three months ended September 30, 2015, was \$1.5 million, compared to \$1.8 million for the three months ended September 30, 2014. The decrease in net income was primarily attributable to an increase in total operating expenses of \$3.1 million, offset by an increase in gross margin of \$2.8 million. The increase in gross margin is primarily due to higher total revenues and lower cost of Design-to-silicon yield solutions during the period.

Net income per basic and diluted share was \$0.05 for the three months ended September 30, 2015, compared to net income per basic and diluted share of \$0.06 and \$0.05, respectively, for the three months ended September 30, 2014.

Cash and cash equivalents increased \$10.8 million from \$115.5 million at December 31, 2014, to \$126.3 million at September 30, 2015, primarily due to an increase in cash from operations during the period, offset by a decrease in cash from financing activities and investing activities.

Financial highlights for the nine months ended September 30, 2015, were as follows:

Total revenues for the nine months ended September 30, 2015, were \$73.9 million, a decrease of \$0.2 million, or 0.3%, compared to \$74.1 million for the nine months ended September 30, 2014. Design-to-silicon-yield solutions revenue for the nine months ended September 30, 2015, was \$49.6 million, an increase of \$10.7 million, or 27%, when compared to Design-to-silicon yield solutions revenue of \$38.9 million for the nine months ended September 30, 2014. The increase in Design-to-silicon yield solutions revenue was primarily the result of recognizing \$6.0 million in revenue upon signing of two contracts with one customer and increased bookings. Gainshare performance incentives revenue for the nine months ended September 30, 2015, was \$24.3 million, a decrease of \$10.9 million, or 31%, compared to \$35.2 million for the nine months ended September 30, 2014. The decrease in revenue from Gainshare performance incentives was primarily the result of lower net volumes reported at older nodes, primarily related to 32nm and 28nm engagements.

Net income for the nine months ended September 30, 2015, was \$9.6 million, compared to \$12.7 million for the nine months ended September 30, 2014. The decrease in net income was primarily attributable to an increase in total operating expenses of \$5.3 million, offset by an increase in gross margin of \$1.0 million and a decrease in income tax provision of \$0.9 million. The increase in gross margin was primarily due to an increase in

- Design-to-silicon yield solutions revenue from the two contracts mentioned above that did not have corresponding expense in the direct cost of Design-to-silicon yield solutions as the costs associated with these contracts were impaired during the third fiscal quarter in 2014. The increase was offset by the decrease in revenue from Gainshare performance incentives. The decrease in income tax provision was primarily due to a decrease in income.

Net income per basic and diluted share was \$0.31 and \$0.30, respectively, for the nine months ended September 30, 2015 compared to net income per basic and diluted share of \$0.41 and \$0.40, respectively, for the nine months ended September 30, 2014, a decrease of \$0.10 per basic and diluted share.

## **Critical Accounting Policies**

There were no significant changes in our critical accounting policies. Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations contained in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2014. The following is a brief discussion of the more significant accounting policies and methods that we use.

### ***General***

Our discussion and analysis of our financial conditions, results of operations and cash flows are based on our consolidated financial statements, which have been prepared in conformity with accounting principles generally accepted in the United States of America. Our preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. We based our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The most significant estimates and assumptions relate to revenue recognition, stock-based compensation and the realization of deferred tax assets. Actual amounts may differ from such estimates under different assumptions or conditions.

### ***Revenue Recognition***

We derive revenue from two sources: Design-to-silicon-yield solutions, which include services and software licenses, and Gainshare performance incentives.

**Design-to-Silicon-Yield Solutions** — Revenue that is derived from Design-to-silicon-yield solutions comes from services and software licenses. We recognize revenue for Design-to-silicon-yield solutions as follows:

We generate a significant portion of our Design-to-silicon-yield solutions revenue from fixed-price solution implementation service contracts delivered over a specific period of time. These contracts require reliable estimation of costs to perform obligations and the overall scope of each engagement. Revenue under project-based contracts for solution implementation services is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. Losses on solution implementation contracts are recognized in the period when they become probable. Revisions in profit estimates are reflected in the period in which the conditions that require the revisions become known and can be estimated. If we do not accurately estimate the resources required or

the scope of work to be performed, or do not manage the projects properly within the planned period of time or satisfy our obligations under contracts, resulting contract margins could be materially different than those anticipated when the contracts were executed. Any such reductions in contract margin could have a material negative impact on our operating results. Revenue under certain time and materials contracts for solution implementation services is recognized as the services are performed.

On occasion, we license our software products as a component of our fixed price service contracts. In such instances, the software products are licensed to customers over a specified term of the agreement with support and maintenance to be provided at each customer's option over the license term. The amount of product and service revenue recognized in a given period is affected by our judgment as to whether an arrangement includes multiple deliverables and, if so, our determination of the fair value of each deliverable. In general, vendor-specific objective evidence of selling price ("VSOE") does not exist for our solution implementation services and software products and because our services and products include our unique technology, we are not able to determine third-party evidence of selling price ("TPE"). Therefore, in such circumstances, we use best estimated selling prices ("BESP") in our allocation of arrangement consideration. In determining BESP, we apply significant judgment as we weigh a variety of factors, based on the facts and circumstances of the arrangement. We typically arrive at BESP for a product or service that is not sold separately by considering company-specific factors such as geographies, internal costs, gross margin objectives, pricing practices used to establish bundled pricing, and existing portfolio pricing and discounting. After fair value is established for each deliverable, the total transaction amount is allocated to each deliverable based upon its relative fair value. Fees allocated to solution implementation services are recognized using the cost-to-cost percentage of completion method of contract accounting. Fees allocated to software and related support and maintenance are recognized under software revenue recognition guidance.



We also license our software products separately from our solution implementation services. For software license arrangements that do not require significant modification or customization of the underlying software, software license revenue is recognized under the residual method when (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the fee is fixed or determinable, (4) collectability is probable, and (5) the arrangement does not require services that are essential to the functionality of the software. When arrangements include multiple elements such as support and maintenance, consulting (other than for our fixed price solution implementations), installation, and training, revenue is allocated to each element of a transaction based upon its fair value as determined by our VSOE and such services are recorded as services revenues. VSOE for maintenance is generally established based upon negotiated renewal rates while VSOE for consulting, installation, and training services is established based upon our customary pricing for such services when sold separately. Revenues for software licenses with extended payment terms are not recognized in excess of amounts due. For software license arrangements that require significant modification or customization of the underlying software, the software license revenues are recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting, and such revenues are recorded as services revenue. We defer certain pre-contract costs incurred for specific anticipated contracts. Deferred costs consist primarily of direct costs to provide solution implementation services in relation to the specific anticipated contracts. We recognize such costs as a component of cost of revenues, the timing of which is dependent upon the revenue recognition policy by contract. At the end of reporting period, we evaluate our deferred costs for their probable recoverability. We recognize impairment of deferred costs when it is determined that the costs no longer have future benefits and are no longer recoverable.

**Gainshare Performance Incentives** — When we enter into a contract to provide yield improvement services, the contract usually includes two components: (1) a fixed fee for performance by us of services delivered over a specific period of time; and (2) a Gainshare performance incentives component where the customer may pay a contingent variable fee, usually after the fixed fee period has ended. Revenues derived from Gainshare performance incentives represent profit sharing and performance incentives earned contingent upon our customers reaching certain defined operational levels established in related solution implementation service contracts. Gainshare performance incentives periods are usually subsequent to the delivery of all contractual services and therefore have no cost to us. Due to the uncertainties surrounding attainment of such operational levels, we recognize Gainshare performance incentives revenues (to the extent of completion of the related solution implementation services) upon receipt of performance reports or other related information from our customers supporting the determination of amounts and probability of collection. Gainshare performance incentives revenue is dependent on many factors which are outside our control, which can include among others, continued production of the related ICs by our customers, sustained yield improvements by our customers, and our ability to enter into new Design-to-silicon-yield solutions contracts containing provisions for Gainshare performance incentives.

### ***Stock-Based Compensation***

Stock-based compensation is estimated at the grant date based on the award's fair value and is recognized on a straight-line basis over the vesting periods, generally four years. As stock-based compensation expense recognized is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

We have elected to use the Black-Scholes-Merton option-pricing model, which incorporates various assumptions including volatility, expected life and interest rates. The expected volatility is based on the historical volatility of our common stock over the most recent period commensurate with the estimated expected life of stock options. The expected life of an award is based on historical experience and on the terms and conditions of the stock awards granted to employees. The interest rate assumption is based upon observed Treasury yield curve rates appropriate for the expected life of stock options.

### *Income Taxes*

We are required to assess the likelihood that our deferred tax assets will be recovered from future taxable income and if we believe that they are not likely to be realizable before the expiration dates applicable to such assets then, to the extent we believe that recovery is not likely, establish a valuation allowance. Changes in the net deferred tax assets, less offsetting valuation allowance, in a period are recorded through the income tax provision in the condensed consolidated statements of operations. As of September 30, 2015, we believe that most of our deferred tax assets are “more likely than not” to be realized with the exception of California R&D tax credits that have not met the “more likely than not” realization threshold criteria because on an annual basis and pursuant to current law, we generate more California credits than California tax. As a result, at September 30, 2015, the excess California R&D tax credits continue to be subject to a full valuation allowance. See Note 5 to the condensed consolidated financial statements for further disclosures regarding our income taxes. If we conclude at a future financial reporting period that there has been a change in our ability to realize our California R&D credit deferred tax assets, and it is at such time no longer “more likely than not” that we will realize the tax credits before applicable expiration dates, our tax provision will increase in the period in which we make such determination.

Our income tax calculations are based on application of the respective U.S. federal, state or foreign tax law. Our tax filings, however, are subject to audit by the respective tax authorities. Accordingly, we recognize tax liabilities based upon our estimate of whether, and the extent to which, additional taxes will be due when such estimates are more-likely-than-not to be sustained. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. To the extent the final tax liabilities are different than the amounts originally accrued, the increases or decreases are recorded as income tax expense or benefit in the consolidated statements of operations.

## Recent Accounting Pronouncements and Accounting Changes

See Note 2 of “Notes to Condensed Consolidated Financial Statements (Unaudited)” of this Quarterly Report on Form 10-Q for a description of recent accounting pronouncements and accounting changes, including the expected dates of adoption and estimated effects, if any, on our consolidated financial statements.

## Results of Operations

The following table sets forth, for the periods indicated, the percentage of total revenues represented by the line items reflected in our condensed consolidated statements of operations:

	<b>Three Months Ended</b>		<b>Nine Months Ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Revenues:				
Design-to-silicon-yield solutions	72 %	48 %	67 %	52 %
Gainshare performance incentives	28	52	33	48
Total revenues	100%	100 %	100%	100 %
Costs of Design-to-silicon-yield solutions				
Direct costs of Design-to-silicon-yield solutions	43	44	39	38
Impairment of deferred costs	-	8	-	3
Amortization of acquired technology	-	-	-	-
Total costs of Design-to-silicon-yield solutions	43	52	39	41
Gross profit	57	48	61	59
Operating expenses:				
Research and development	22	15	19	14
Selling, general and administrative	24	20	20	18
Amortization of other acquired intangible assets	—	—	—	—
Restructuring changes	—	—	—	—
Total operating expenses	46	35	39	32
Income from operations	11	13	22	27
Interest and other income (expense), net	—	—	—	—
Income before taxes	11	13	22	27
Income tax provision	5	5	9	10
Net income	6 %	8 %	13 %	17 %

*Comparison of the Three Months Ended September 30, 2015 and 2014*

	Three Months Ended		\$	%	
	September 30, 2015	September 30, 2014			
<b>Revenues</b> <b>(in thousands, except for percentages)</b>					
Design-to-silicon-yield solutions	\$17,246	\$10,860	\$6,386	59	%
Gainshare performance incentives	6,632	11,546	(4,914)	(43)	%
Total revenues	\$23,878	\$22,406	\$1,472	7	%

*Design-to-silicon-yield solutions.* Design-to-silicon-yield solutions revenue is derived from services (including solution implementations, software support and maintenance, consulting, and training) and software licenses, provided during our customer yield improvement engagements as well as during solution product sales. Design-to-silicon-yield solutions revenue increased \$6.4 million for the three months ended September 30, 2015, compared to the three months ended September 30, 2014, primarily due to an increase in fixed fee integrated solutions, the result of more billable hours to revenue-generating projects in the period due to increased business activity. Our Design-to-silicon-yield solutions revenue may fluctuate in the future and is dependent on a number of factors, including the semiconductor industry's continued acceptance of our solutions, the timing of purchases by existing customers, and our ability to attract new customers and penetrate new markets including photovoltaic and LED, and further penetration of our current customer base. Fluctuations in future results may also occur if any of our significant customers renegotiate pre-existing contractual commitments due to adverse changes in their own business or, in the case of a time and materials contract, may take advantage of contractual provisions that permit the suspension of contracted work for a period if their business experiences a financial hardship.

*Gainshare Performance Incentives.* Gainshare performance incentives revenues represent profit sharing and performance incentives earned contingent upon our customers reaching certain defined operational levels. Revenue derived from Gainshare performance incentives decreased \$4.9 million for the three months ended September 30, 2015, compared to the three months ended September 30, 2014. The decrease was primarily the result of lower net volumes reported at older nodes, primarily related to 32nm and 28nm engagement. Our Gainshare performance incentives revenue may continue to fluctuate from period to period. Gainshare performance incentives revenue is dependent on many factors that are outside our control, including among others, continued production of ICs by our customers at facilities at which we generate gainshare, sustained yield improvements by our customers, and our ability to enter into new Design-to-silicon-yield solutions contracts containing provisions for Gainshare performance incentives.

	<b>Three Months Ended</b>		<b>\$</b>	<b>%</b>	
	<b>September 30, 2015</b>	<b>2014</b>			
<b>Costs of Design-to-silicon-yield solutions (in thousands, except for percentages)</b>					
Direct costs of Design-to-silicon-yield solutions	\$10,172	\$9,722	\$450	5	%
Impairment of deferred costs	—	1,892	(1,892)	(100)	%
Amortization of acquired technology	80	—	80	100	%
Total costs of Design-to-silicon-yield solutions	\$10,252	\$11,614	\$(1,362)	(12)	%

*Costs of Design-to-silicon-yield solutions.* Costs of Design-to-silicon-yield solutions consist of costs incurred to provide and support our services and costs recognized in connection with licensing our software. Services costs consist of material, employee compensation and related benefits, overhead costs, travel and facilities-related costs. Software license costs consist of costs associated with licensing third-party software sold in conjunction with our software products. Direct costs of Design-to-silicon-yield solutions for the three months ended September 30, 2015 increased \$0.5 million compared to the three months ended September 30, 2014, primarily due to a \$0.1 million increase in subcontractor expense, a \$0.1 million increase in depreciation expense, and a \$0.5 million increase in equipment cost, offset by a \$0.3 million decrease in travel cost. During the three months ended September 30, 2014, the Company recorded an impairment loss of \$1.9 million of deferred pre-contract costs for two contracts with a customer as it was determined that the costs were no longer recoverable. Amortization of acquired technology slightly increased for the three months ended September 30, 2015 compared to the three months ended September 30, 2014 due to the amortization of acquired technology from the Synticity acquisition. The costs of Design-to-silicon-yield solutions as a percentage of revenues during the three months ended September 30, 2015 was 43% compared to 52% in the three months ended September 30, 2014. The decrease in costs of Design-to-silicon-yield solutions as a percentage of revenue was primarily driven by the recognition of impaired deferred costs of \$1.9 million related to the two contracts mentioned above during the three months ended September 30, 2014.

<b>Research and Development</b>	<b>Three Months Ended</b>		<b>\$</b>	<b>%</b>	
	<b>September 30, 2015</b>	<b>2014</b>			

**(in thousands, except for percentages)**

Research and development	\$5,173	\$3,349	\$ 1,824	54	%
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*Research and Development.* Research and development expenses consist primarily of personnel-related costs to support product development activities, including compensation and benefits, outside development services, travel and facilities cost allocations, and stock-based compensation charges. Research and development expenses increased \$1.8 million for the three months ended September 30, 2015, compared to the three months ended September 30, 2014, primarily due to a \$1.0 million increase in personnel-related expense due to an increase in headcount, a \$0.4 million increase in subcontractor expense, a \$0.1 million contingent earn-out payments related to the acquisition of Synticity, and a \$0.2 million increase in facility expense. We anticipate our expenses in research and development will fluctuate in absolute dollars from period to period as a result of cost control initiatives and the timing of when we hire personnel as a result of the size and the timing of product development projects.

	<b>Three Months Ended</b>					
	<b>September 30, 2015</b>	<b>2014</b>	<b>\$</b>	<b>%</b>	<b>Change</b>	<b>Change</b>
<b>Selling, General and Administrative (in thousands, except for percentages)</b>						
Selling, general and administrative	\$5,665	\$4,498	\$ 1,167	26	%	

*Selling, General and Administrative.* Selling, general and administrative expenses consist primarily of compensation and benefits for sales, marketing and general and administrative personnel, legal and accounting services, marketing communications, travel and facilities cost allocations, and stock-based compensation charges. Selling, general and administrative expenses increased \$1.2 million for the three months ended September 30, 2015, compared to the three months ended September 30, 2014, primarily due to a \$0.4 million increase in personnel-related expense, a \$0.4 million of contingent earn-out payment related to the acquisition of Syntricity, a \$0.3 million increase in acquisition related costs, a \$0.1 million increase in travel expense, and a \$0.2 million increase in subcontractor expense, offset by a decrease in accounting and non-acquisition-related legal expense of \$0.2 million. We anticipate our selling, general and administrative expenses will fluctuate in absolute dollars from period to period as a result of cost control initiatives and to support increased selling efforts in the future.

	<b>Three Months Ended</b>					
	<b>September 30, 2015</b>	<b>2014</b>	<b>\$</b>	<b>%</b>	<b>Change</b>	<b>Change</b>
<b>Amortization of Other Acquired Intangible Assets (In thousands, except for percentages)</b>						
Amortization of other acquired intangible assets	\$ 89	\$ —	\$ 89	100	%	

*Amortization of Other Acquired Intangible Assets.* Amortization of other acquired intangible assets consists of amortization of intangibles acquired as a result of certain business combinations. The amortization of other acquired intangible assets for the three months ended September 30, 2015 slightly increased compared to the three months ended September 30, 2014, primarily due to the amortization of acquired intangible assets from the Syntricity acquisition.

	<b>Three Months Ended</b>					
	<b>September 30, 2015</b>	<b>2014</b>	<b>\$</b>	<b>%</b>	<b>Change</b>	<b>Change</b>
<b>Interest and Other Income (Expense), Net (in thousands, except for percentages)</b>						
Interest and other income (expense), net	\$ 64	\$ 33	\$ 31	94	%	

*Interest and Other Income (expense), net.* Interest and other income (expense), net increased \$31,000 for the three months ended September 30, 2015 compared to the three months ended September 30, 2014. The change was primarily due to fluctuations in foreign exchange rates. We anticipate interest and other income (expense) will fluctuate in future periods as a result of our projected use of cash and fluctuations of foreign exchange rates.

	<b>Three Months Ended</b>			
	<b>September 30, 2015</b>	<b>September 30, 2014</b>	<b>\$ Change</b>	<b>% Change</b>
<b>Income Tax Provision</b>				
<b>(in thousands, except for percentages)</b>				
Income tax provision	\$1,269	\$1,217	\$ 52	4 %

*Income Tax Provision.* Income tax provision increased \$52,000 for the three months ended September 30, 2015, compared to three months ended September 30, 2014, primarily due to the estimated nondeductible acquisition expenses relating to the Syntricity acquisition.



**Comparison of the Nine Months Ended September 30, 2015 and 2014**

<b>Revenues</b> <b>(In thousands, except for percentages)</b>	<b>Nine Months Ended</b>		<b>\$</b>	<b>%</b>	
	<b>September 30, 2015</b>	<b>2014</b>		<b>Change</b>	<b>Change</b>
Design-to-silicon-yield solutions	\$49,557	\$38,871	\$10,686	27	%
Gainshare performance incentives	24,348	35,231	(10,883)	(31)	%
Total	\$73,905	\$74,102	\$(197)	—	%

*Design-to-Silicon-Yield Solutions.* Design-to-silicon-yield solutions revenue increased \$10.7 million for the nine months ended September 30, 2015 compared to the nine months ended September 30, 2014, primarily due to the result of recognizing \$6.0 million in revenue upon signing of the two contracts with one customer during the period and increased bookings.

*Gainshare Performance Incentives.* Revenue derived from gainshare performance incentives decreased \$10.9 million for the nine months ended September 30, 2015 compared to the nine months ended September 30, 2014. The decrease was primarily the result of lower wafer volumes reported at 32nm and 28nm nodes, only slightly offset by the introduction of new gainshare revenue from a 20nm node.

<b>Costs of Design-to-silicon-yield solutions</b> <b>(in thousands, except for percentages)</b>	<b>Nine Months Ended</b>		<b>\$</b>	<b>%</b>	
	<b>September 30, 2015</b>	<b>2014</b>		<b>Change</b>	<b>Change</b>
Direct costs of Design-to-silicon-yield solutions	\$28,863	\$28,273	\$590	2	%
Impairment of deferred costs	—	1,892	(1,892)	(100)	%
Amortization of acquired technology	80	—	80	100	%
Total costs of Design-to-silicon-yield solutions	\$28,943	\$30,165	\$(1,222)	(4)	%

*Costs of Design-to-Silicon-Yield Solutions.* Direct costs of Design-to-silicon-yield solutions for the nine months ended September 30, 2015 increased \$0.6 million compared to the nine months ended September 30, 2014, primarily due to a \$0.4 million increase in subcontractor expense, a \$1.3 million change in deferred costs related to timing of completion of the contract signature process, a \$0.3 million increase in depreciation expense, and a \$0.9 million increase in equipment cost, offset by a \$1.3 million decrease in personal-related expense due to lower headcount and lower variable compensation, somewhat offset by higher stock based compensation expense, a \$0.7 million decrease in travel expense, and a \$0.2 million decrease in facility expense. During the nine months ended September 30, 2014, the Company recorded an impairment loss of \$1.9 million of deferred pre-contract costs for two contracts with a

customer as it was determined that the costs were no longer recoverable. Amortization of acquired technology slightly increased for the nine months ended September 30, 2015 compared to the nine months ended September 30, 2014 due to the amortization of acquired technology from the Synticity acquisition. The costs of Design-to-silicon-yield solutions as a percentage of revenues during the three months ended September 30, 2015 was 39% compared to 41% in the nine months ended September 30, 2014. The decrease in costs of Design-to-silicon-yield solutions as a percentage of revenue was primarily driven by the recognition of impaired deferred costs of \$1.9 million related to the two contracts mentioned above during the nine months ended September 30, 2014.

	Nine Months Ended		\$	%	
	September 30, 2015	2014			
<b>Research and Development (In thousands, except for percentages)</b>					
Research and development	\$13,698	\$10,282	\$3,416	33	%

*Research and Development.* Research and development expenses increased \$3.4 million for the nine months ended September 30, 2015 compared to the nine months ended September 30, 2014, primarily due to a \$1.7 million increase in personnel-related expense, a \$1.0 million increase in outside service expenses, a \$0.3 million increase in facility expense, a \$0.1 million of contingent earn-out payments related to the acquisition of Syntricity, and a \$0.1 million increase in travel expense. We anticipate our expenses in research and development will fluctuate in absolute dollars from period to period as a result of cost control initiatives and the timing of when we hire personnel as a result of the size and the timing of product development projects and revenue generating activity requirements.

	Nine Months Ended		\$	%	
	September 30, 2015	2014			
<b>Selling, General and Administrative (In thousands, except for percentages)</b>					
Selling, general and administrative	\$15,336	\$13,487	\$1,849	14	%

*Selling, General and Administrative.* Selling, general and administrative expenses increased \$1.8 million for the nine months ended September 30, 2015 compared to the nine months ended September 30, 2014, primarily due to a \$0.2 million increase in travel expense, a \$0.4 million in subcontractor expense, a \$0.4 million contingent earn-out payment related to the acquisition of Syntricity, and a \$0.8 million increase in acquisition related cost, offset by a \$0.1 million decrease in legal and accounting expense.

	Nine Months Ended		\$	%	
	September 30, 2015	2014			
<b>Amortization of Other Acquired Intangible Assets (In thousands, except for percentages)</b>					
Amortization of other acquired intangible assets	\$89	\$31	\$58	187	%

Amortization of other acquired intangible assets consists of amortization of intangibles acquired as a result of certain business combinations. The amortization of other acquired intangible assets for the nine months ended September 30, 2015 slightly increased compared to the nine months ended September 30, 2014, primarily due to the amortization of acquired intangible assets from the Syntricity acquisition

	<b>Nine Months Ended September 30,</b>		<b>\$</b>	<b>%</b>
<b>Restructuring Charges (Credits)</b>	<b>2015</b>	<b>2014</b>	<b>Change</b>	<b>Change</b>
<b>(In thousands, except for percentages)</b>				
Restructuring charges (credits)	\$ —	\$ 57	\$ (57 )	(100 )%

*Restructuring Charges (Credits).* No restructuring charges were recorded during the nine months ended September 30, 2015. For the nine months ended September 30, 2014, we recorded restructuring charges of \$57,000, which represented severance charges related to the October 2012 restructuring plan.

	<b>Nine Months Ended</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>\$</b>	<b>%</b>
<b>Interest and Other Income (Expense), Net</b>				
<b>(In thousands, except for percentages)</b>				
Interest and other income (expense), net	\$ 166	\$(82)	\$ 248	(302)%

*Interest and Other Income (Expense), Net.* Interest and other income (expense) increased \$0.2 million for the nine months ended September 30, 2015 compared to the nine months ended September 30, 2014. The change was primarily due to fluctuations in foreign exchange rates. We anticipate interest and other income (expense), net will fluctuate in future periods as a result of our projected use of cash and fluctuations of foreign exchange rates.

	<b>Nine Months Ended</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>\$</b>	<b>%</b>
<b>Income Tax Provision</b>				
<b>(In thousands, except for percentages)</b>				
Income tax provision	\$6,395	\$7,287	\$ (892)	(12)%

*Income Tax Provision.* Income tax provision decreased \$892,000 for the nine months ended September 30, 2015 compared to nine months ended September 30, 2014, primarily due to a decrease in income.

## Liquidity and Capital Resources

### Operating Activities

Cash flows provided by operating activities was \$22.1 million for the nine months ended September 30, 2015. This resulted from net income of \$9.6 million, adjustment of \$10.3 million for non-cash charges and a cash increase of \$2.2 million reflected in the net change of operating assets and liabilities. Non-cash charges consisted primarily of stock-based compensation of \$7.1 million, deferred taxes of \$1.6 million, tax benefit related to a stock-based compensation plan of \$1.8 million, depreciation and amortization of \$1.9 million, accrued contingent earn-out payments of \$0.5 million, and amortization of acquired intangible assets of \$0.2 million, partially offset by excess tax benefit from stock-based compensation of \$1.7 million and tax withholdings related to net share settlements of restricted stock awards and units of \$1.1 million. Cash flow increases resulting from the net change in operating assets and liabilities primarily consisted of a \$6.3 million decrease in accounts receivable, primarily driven by strong collections, a \$0.8 million net increase in deferred revenue, a \$0.6 million increase in accrued and other liabilities, and

a \$0.1 million increase in billings in excess of recognized revenues, offset by a \$0.3 million decrease in accounts payable, \$1.9 million decrease in accrued compensation and related benefits, driven by the payment of variable compensation during the period, and a \$3.4 million decrease in prepaid expenses and other assets. The \$7.2 million combined cash flow increase resulting from the decrease in accounts receivable, the increase in deferred revenue and the increase in billings in excess of recognized revenues, was primarily due to the timing of billing milestones and payments received.

Cash flows provided by operating activities was \$27.8 million for the nine months ended September 30, 2014. This resulted from net income of \$12.7 million, the addition of \$9.8 million from non-cash charges and cash increase of \$5.3 million reflected in the net change of operating assets and liabilities. Non-cash charges consisted primarily of stock-based compensation of \$6.3 million, deferred taxes of \$3.0 million, tax benefit related to stock-based compensation plan of \$1.2 million, depreciation and amortization of \$1.5 million, partially offset by excess tax benefit from stock-based compensation of \$1.2 million, tax withholdings related to net share settlements of restricted stock awards and units of \$0.9 million and gain on disposal of property and equipment of \$0.1 million. Cash flow increases resulting from the net change in operating assets and liabilities primarily consisted of \$7.9 million decrease in accounts receivable, primarily driven by strong collections, \$0.2 million net increase in deferred revenue and billing in excess of recognized revenue, \$0.8 million increase in prepaid expense and other assets due to timing of prepayment of third party software cost, offset by \$0.8 million decrease in accounts payable, \$2.4 million decrease in accrued compensation and related benefits, driven by the payment of variable compensation during the period, and \$0.4 million decrease in accrued and other liabilities. The \$8.0 million combined cash flow increase resulting from the decrease in accounts receivable, the increase in deferred revenue and the decrease in billings in excess of recognized revenues was primarily due to the timing of billing milestones and payments received.

### ***Investing Activities***

Cash flows used in investing activities for the nine months ended September 30, 2015 of \$9.2 million consisted of \$4.0 million payments for capital expenditures, primarily test equipment and \$5.2 million payments for business acquisitions, net of cash acquired.

Cash flows used in investing activities for the nine months ended September 30, 2014 of \$3.1 million consisted of \$3.2 million payment for capital expenditures, primarily test equipment, offset by proceeds from the sales of property and equipment of \$0.1 million.

### ***Financing Activities***

Cash flows used in financing activities of \$2.0 million for the nine months ended September 30, 2015, consisted primarily of \$4.9 million of proceeds from the exercise of stock options, \$1.4 million of proceeds from our Employee Stock Purchase Plan, and \$1.7 million of excess tax benefit from stock-based compensation, offset by \$9.6 million of cash used to repurchase 636,996 shares of our common stock at an average price of \$15.09 per share.

Cash flows provided by financing activities of \$2.1 million for the nine months ended September 30, 2014, consisted primarily of \$3.1 million of proceeds from the exercise of stock options, \$1.4 million of proceeds from our Employee Stock Purchase Plan, \$1.2 million of excess tax benefit from stock-based compensation, offset by \$3.6 million of cash used to repurchase shares of our common stock.

### **Liquidity**

As of September 30, 2015, our working capital, defined as total current assets less total current liabilities, was \$151.5 million, compared with \$147.0 million as of December 31, 2014. Cash and cash equivalents were \$126.3 million as of September 30, 2015, compared to \$115.5 million as of December 31, 2014. As of September 30, 2015 and December 31, 2014, cash and cash equivalents held by our foreign subsidiaries were \$2.6 million and \$2.0 million, respectively. We anticipate that our overall expenses, as well as planned capital expenditures, may constitute a material use of our cash resources. In addition, we may use cash resources to continue to fund our R&D efforts, repurchase common stock or fund potential investments in, or acquisitions of complementary products, technologies or businesses. We believe that our existing cash resources and anticipated funds from operations will satisfy our cash requirements to fund our operating activities, capital expenditures and other obligations for at least the next twelve months.

**Off-Balance Sheet Agreements**

We do not have any off-balance sheet arrangements, investments in special purpose entities or undisclosed borrowings or debt.

We indemnify certain customers from third-party claims of intellectual property infringement relating to the use of our products. Historically, costs related to these guarantees of indemnification have not been significant. We are unable to estimate the maximum potential impact of these guarantees on our future results of operations.

**Contractual Obligations**

The following table summarizes our known contractual obligations (in thousands) as of September 30, 2015:

<b>Contractual Obligations (1)</b>	<b>Payments Due by Period</b>						<b>Total</b>
	<b>(remaining 2016 three months)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Thereafter</b>		
Operating lease obligations	\$504	\$1,856	\$1,418	\$808	\$73	\$80	\$4,739

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The contractual obligation table above excludes liabilities for uncertain tax positions of \$2.4 million, which are (1) not practicable to assign to any particular years, due to the inherent uncertainty of the tax positions. See Note 5 of “Notes to Consolidated Financial Statements” for further discussion.



### **Item 3. Quantitative and Qualitative Disclosures About Market Risk**

The following discusses our exposure to market risk related to changes in interest rates and foreign currency exchange rates. We do not currently own any equity investments, nor do we expect to own any in the foreseeable future. This discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results could vary materially as a result of a number of factors.

*Interest Rate Risk.* As of September 30, 2015, we had cash and cash equivalents of \$126.3 million. Cash and cash equivalents consisted of cash and highly liquid money market instruments. We would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest on our portfolio. A hypothetical increase in market interest rates of 100 basis points from the market rates in effect at September 30, 2015, would cause the fair value of these investments to decrease by an immaterial amount which would not have significantly impacted our financial position or results of operations. Declines in interest rates over time will result in lower interest income and interest expense.

*Foreign Currency and Exchange Risk.* Certain of our payables for our international offices are denominated in the local currency, including the Euro, Yen and RMB. Therefore, a portion of our operating expenditures is subject to foreign currency risks. We enter into foreign currency forward contracts to reduce the exposure to foreign currency exchange rate fluctuations on certain foreign currency denominated monetary assets and liabilities. We do not use foreign currency forward contracts for speculative or trading purposes. We record these forward contracts at fair value. The counterparty to these foreign currency forward contracts is a large global financial institution that we believe is creditworthy, and therefore, we believe the credit risk of counterparty non-performance is not significant. The change in fair value of these contracts is recorded into earnings as a component of other income (expense), net and offsets the change in fair value of foreign currency denominated monetary assets and liabilities, which is also recorded in other income (expense), net. As of September 30, 2015, we had one outstanding forward contract with a notional amount of \$6.8 million. The foreign currency exchange rate movement of plus-or-minus 10% will result in the change in fair value of this contract of plus-or-minus \$0.7 million.

### **Item 4. Controls and Procedures**

#### **Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our principal executive officer and principal financial and accounting officer, evaluated the effectiveness of our "disclosure controls and procedures" as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) as of September 30, 2015, in connection with the filing of this Quarterly Report on Form 10-Q. Based on that evaluation as of September 30, 2015, our principal executive officer and principal financial

and accounting officer concluded that our disclosure controls and procedures were effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in rules and forms of the SEC and accumulated and communicated to our management as appropriate to allow timely decisions regarding required disclosure.

### **Changes in Internal Control over Financial Reporting**

There were no changes in the Company's internal control over financial reporting during the three months ended September 30, 2015, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## **PART II — OTHER INFORMATION**

### **Item 1. Legal Proceedings**

From time to time, we are subject to various claims and legal proceedings that arise in the ordinary course of business. 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. During the reported period, we were not a party to any material legal proceedings, thus no loss was probable and no amount was accrued at September 30, 2015.

**Item 1A. Risk Factors**

Item 1A, “Risk Factors,” on pages 24 through 30 of the Company’s Quarterly Report on Form 10-Q for the three months ended March 31, 2015, provides information on the significant risks associated with our business. There have been no subsequent material changes to these risks.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**

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 Securities Exchange Act of 1934) of our common stock during the three months ended September 30, 2015 (in thousands except per share amounts):

**ISSUER PURCHASES OF EQUITY SECURITIES**

<b>Period</b>	<b>Total Number of Shares Purchased (1)</b>	<b>Average Price Paid Per Share</b>	<b>Total</b>	
			<b>Number of Shares Purchased Publicly Announced Programs (1)</b>	<b>Approximate Dollar Value of Shares that May Yet Be Purchased Under Programs(1)</b>
Month #7 (July 1, 2015 through July 31, 2015)	—	\$ —	—	\$ 19,429
Month #8 (August 1, 2015 through August 31, 2015)	277	\$ 12.90	277	\$ 15,851
Month #9 (September 1, 2015 through September 30, 2015)	40	\$ 11.60	40	\$ 15,387
Total	317	\$ 12.74	317	

On October 21, 2014, the Board of Directors adopted a program to repurchase up to \$25.0 million of the (1) Company's common stock both on the open market and in privately negotiated transactions over the next two years.

**Item 3. Defaults Upon Senior Securities**

None.

**Item 4. Mine Safety Disclosures**

None.

**Item 5. Other Information**

None.

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**Item 6. Exhibits****Exhibit**

<b>Number</b>	<b>Description</b>
31.01	Certification of the principal executive officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02	Certification of the principal financial and accounting officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.02	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

**PDF SOLUTIONS, INC.**

Date: November 6, 2015 By: /s/ JOHN K. KIBARIAN  
John K. Kibarian  
President and Chief Executive Officer  
(principal executive officer)

Date: November 6, 2015 By: /s/ GREGORY C. WALKER  
Gregory C. Walker  
Vice President, Finance and Chief Financial Officer  
(principal financial and accounting officer)

**INDEX TO EXHIBITS**

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