



# 2017 Third Quarter Management Report

**October 26, 2017**

**(and updated November 10, 2017 with adjustments to Slide 9 and a new Slide 17, as described in the Company's 8-K filed on November 13, 2017)**

Statements herein regarding the Company's future expected business performance and financial results are forward looking and are subject to events and circumstances of the future. Actual results could differ materially from those expressed in these forward-looking statements. Risks and uncertainties that could cause results to differ materially include risks associated with: customers' production volumes at Gainshare-covered facilities; continued adoption of the Company's solutions by new and existing customers; project milestones or delays and performance criteria achieved; the provision of technology and services prior to the execution of a final contract; and other risks set forth in PDF Solutions' periodic public filings with the Securities and Exchange Commission, including, without limitation, its Annual Reports on Form 10-K, most recently filed for the year ended December 31, 2016, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K and amendments to such reports. The forward-looking statements made in the conference call are made as of the date hereof, and PDF Solutions does not assume any obligation to update such statements nor the reasons why actual results could differ materially from those projected in such statements.



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The following commentary is provided by management and should be referenced in conjunction with PDF Solutions' third quarter for fiscal year 2017 financial results press release available on its Investor Relations website at <http://www.pdf.com/financial-news>. These remarks represent management's current views of the Company's financial and operational performance and outlook and are provided to give investors and analysts further insight into its performance in advance of the earnings call webcast.

# GAAP Income Statement – Quarterly Trend Through Q3 2017

in thousands (except share amounts, percent of revenue, and EPS)

PDF Solutions, Inc. P&L (GAAP)	Actuals						
	Q1-16	Q2-16	Q3-16	Q4-16	Q1-17	Q2-17	Q3-17
Design to Silicon Yield Solutions	18,578	20,574	18,552	19,458	19,698	16,500	19,229
Gain Share - Performance Incentive	6,503	6,114	8,707	8,975	4,591	7,789	7,288
<b>Total Revenue</b>	<b>25,081</b>	<b>26,688</b>	<b>27,259</b>	<b>28,433</b>	<b>24,289</b>	<b>24,289</b>	<b>26,517</b>
<b>Cost of Sales</b>	<b>10,206</b>	<b>10,654</b>	<b>11,452</b>	<b>12,136</b>	<b>11,431</b>	<b>11,379</b>	<b>12,431</b>
<b>GROSS MARGIN</b>	<b>14,875</b>	<b>16,034</b>	<b>15,807</b>	<b>16,297</b>	<b>12,858</b>	<b>12,910</b>	<b>14,086</b>
<b>Gross Margin %</b>	<b>59%</b>	<b>60%</b>	<b>58%</b>	<b>57%</b>	<b>53%</b>	<b>53%</b>	<b>53%</b>
<b>OPERATING EXPENSES</b>							
<b>Research &amp; Development</b>	6,311	7,060	7,017	7,171	7,282	7,276	7,875
<b>R&amp;D % of Revenue</b>	25%	26%	26%	25%	30%	30%	30%
<b>Selling, General, &amp; Administrative</b>	5,124	5,094	5,548	6,290	5,899	6,195	5,680
<b>SG&amp;A % of Revenue</b>	20%	19%	20%	22%	24%	26%	21%
Amortization of other acquired intangible assets	117	117	106	92	92	92	107
<b>TOTAL OPERATING EXPENSES</b>	<b>11,552</b>	<b>12,271</b>	<b>12,671</b>	<b>13,553</b>	<b>13,273</b>	<b>13,563</b>	<b>13,662</b>
<b>OPERATING INCOME (LOSS)</b>	<b>3,323</b>	<b>3,763</b>	<b>3,136</b>	<b>2,744</b>	<b>(415)</b>	<b>(653)</b>	<b>424</b>
Other (Income) / Expense, Net	236	51	101	(378)	230	(27)	104
<b>PRE-TAX INCOME (LOSS)</b>	<b>3,087</b>	<b>3,712</b>	<b>3,035</b>	<b>3,122</b>	<b>(645)</b>	<b>(626)</b>	<b>320</b>
Income Tax Provision (Benefit)	1,026	1,579	1,051	197	(1,162)	(815)	(270)
<b>Net Income</b>	<b>2,061</b>	<b>2,133</b>	<b>1,984</b>	<b>2,925</b>	<b>517</b>	<b>189</b>	<b>590</b>
<b>GAAP EPS</b>	<b>0.07</b>	<b>0.07</b>	<b>0.06</b>	<b>0.09</b>	<b>0.02</b>	<b>0.01</b>	<b>0.02</b>
<b>Diluted Weighted Avg Shares (in millions)</b>	<b>31.8</b>	<b>32.1</b>	<b>32.6</b>	<b>33.3</b>	<b>33.6</b>	<b>33.4</b>	<b>33.0</b>

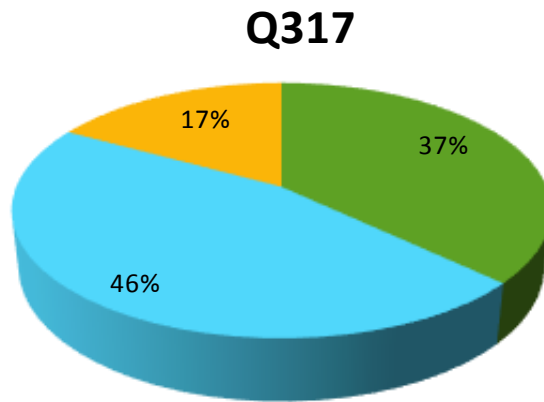


## Q3 2017 CFO Commentary – GAAP Income Statement

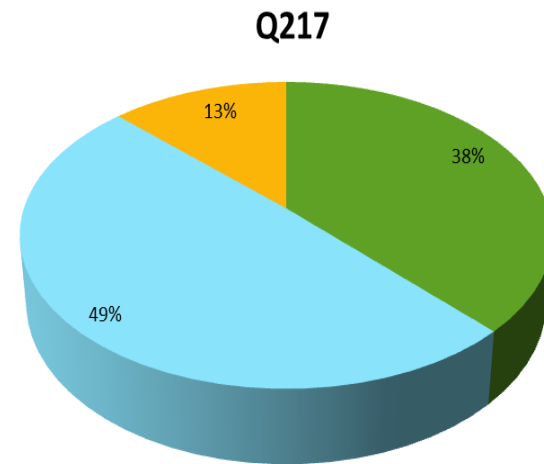
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- Total GAAP revenues were \$26.5 million resulting in GAAP net income of \$0.6 million and GAAP EPS of \$0.02 cents per fully diluted share.
- Total GAAP operating income was \$0.4 million, resulting in GAAP operating margin of 1.6%.
- Fully diluted shares outstanding were 33.0 million for the quarter.
- The GAAP income tax benefit was \$0.3 million.

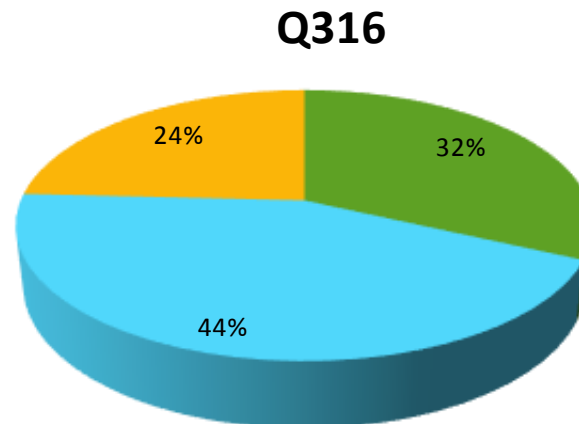
# GAAP Revenue by Geography Q3 2017 & Comparable Quarters



■ North America ■ Asia Pacific ■ EMEA



■ North America ■ Asia Pacific ■ EMEA



■ North America ■ Asia Pacific ■ EMEA

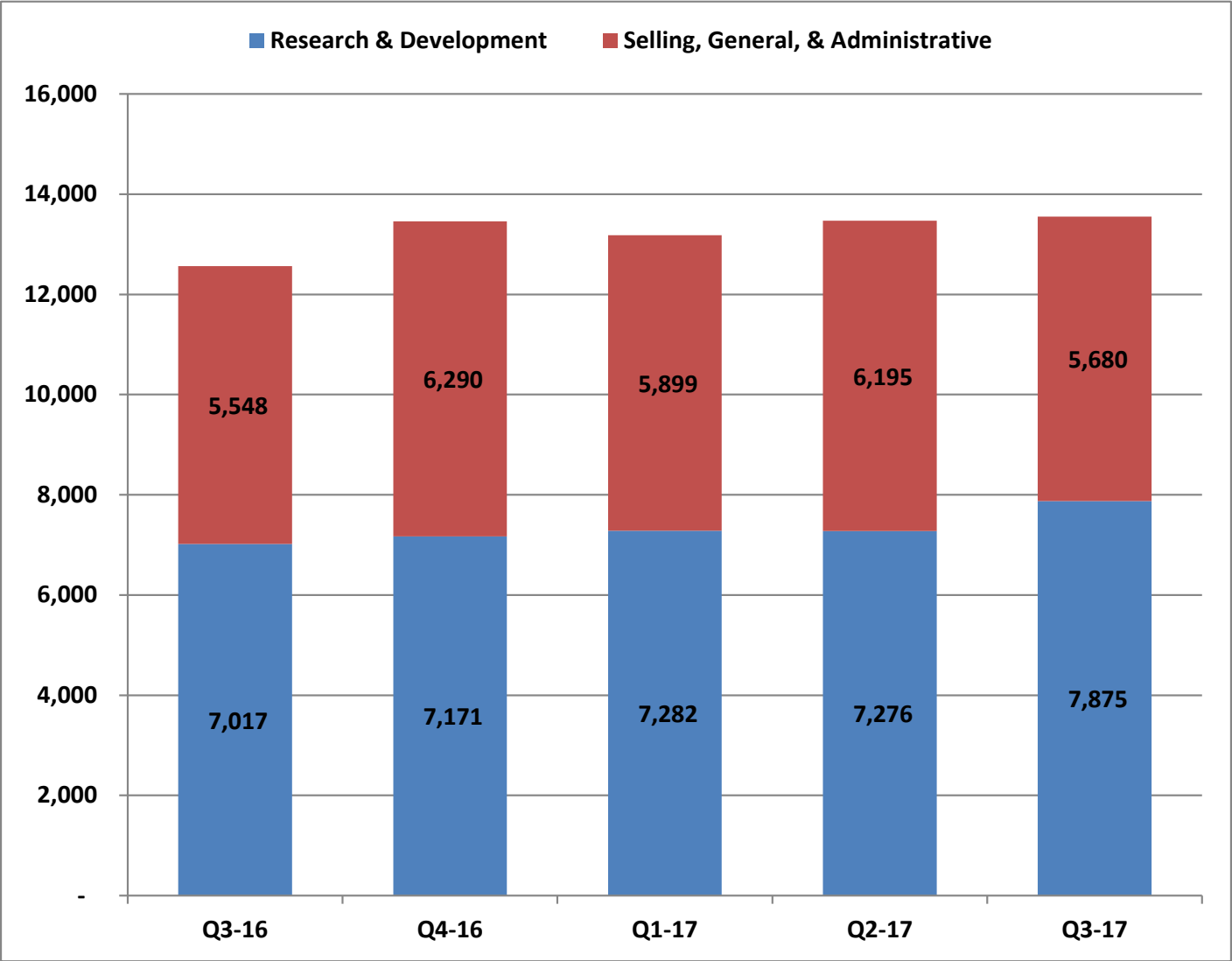
## Q3 2017 CFO Commentary – GAAP Revenue & GM Detail

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- Total GAAP revenues of \$26.5 million were \$2.2 million higher when compared to the prior quarter.
- The top ten customers represented 80% of total revenues. One of these customers contributed revenues 10% or greater.
- Solutions revenue consisted of 12 project-based engagements that contributed at least \$100,000 of solutions revenue each in the quarter.
- The total number of node-sites, defined as an individual fab and process node combination, contributing to Gainshare revenue, was 15.
- On a GAAP basis, Cost of Sales was \$12.4 million, which was approximately \$1 million higher compared to the prior quarter.
- GAAP gross margin was 53%, which was the same as the prior quarter.

# GAAP Operating Expenses – Quarterly Through Q3 2017

in thousands



## Q3 2017 CFO Commentary – GAAP Operating Expenses

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- Total GAAP Operating Expenses, at \$13.7 million, were \$0.1 million higher than the prior quarter, and 52% of total revenues, down 4% from the prior quarter.
- GAAP R&D expenses totaled \$7.9 million, \$0.6 million higher than the prior quarter.
- GAAP R&D expenses as a percent of revenue was 30%, which was the same compared to the prior quarter.
- GAAP SG&A expenses totaled \$5.7 million, \$0.5 million lower than the prior quarter.
- GAAP SG&A expenses as a percent of revenue was 21%, which was down 4% from the prior quarter.



# GAAP Balance Sheet Trend – Quarterly Through Q3 2017

in thousands

## ASSETS

	30-Sep-16	31-Dec-16	31-Mar-17	30-Jun-17	30-Sep-17
Cash and cash equivalents	\$ 118,534	\$ 116,787	\$ 114,926	\$ 109,007	\$ 100,750
Accounts receivable, net of allowance	44,023	48,157	50,088	54,029	52,954
Prepaid expenses and other current assets	5,163	5,335	6,741	8,813	6,580
Total current assets	167,720	170,279	171,755	171,849	160,284
Property and equipment, net	18,192	19,341	20,798	23,068	23,604
Deferred tax assets	14,135	15,640	16,201	15,815	18,522
Goodwill	215	215	215	215	1,923
Intangible assets, net	4,411	4,223	4,035	3,847	6,325
Other non-current assets	9,413	12,631	14,615	12,263	11,312
<b>Total assets</b>	<b>\$ 214,086</b>	<b>\$ 222,329</b>	<b>\$ 227,619</b>	<b>\$ 227,057</b>	<b>\$ 221,970</b>

## LIABILITIES

Accounts payable	\$ 947	\$ 2,206	\$ 2,436	\$ 2,270	\$ 2,608
Accrued compensation and related benefits	5,190	5,959	4,988	5,863	5,450
Accrued and other current liabilities	3,077	2,080	1,913	2,075	2,436
Deferred revenues - current portion	8,399	8,189	9,777	8,933	7,624
Billings in excess of recognized revenue	73	88	200	389	289
Total current liabilities	17,686	18,522	19,314	19,530	18,407
Long-term income taxes payable	2,859	3,354	3,247	3,174	2,914
Other non-current liabilities	657	1,650	1,802	2,253	2,352
<b>Total liabilities</b>	<b>21,202</b>	<b>23,526</b>	<b>24,363</b>	<b>24,957</b>	<b>23,673</b>

## EQUITY

Common stock	5	5	5	5	5
Additional paid-in-capital	276,495	281,423	285,930	289,956	294,359
Treasury stock at cost	(53,726)	(54,882)	(55,726)	(61,532)	(70,739)
Accumulated deficit	(28,677)	(25,752)	(25,235)	(25,046)	(24,455)
Accumulated other comprehensive loss	(1,213)	(1,991)	(1,718)	(1,283)	(873)
<b>Total equity</b>	<b>192,884</b>	<b>198,803</b>	<b>203,256</b>	<b>202,100</b>	<b>198,297</b>
<b>Total liabilities and equity</b>	<b>\$ 214,086</b>	<b>\$ 222,329</b>	<b>\$ 227,619</b>	<b>\$ 227,057</b>	<b>\$ 221,970</b>

## Q3 2017 – GAAP Balance Sheet – Cash & Accounts Receivables

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- Total cash at the end of the quarter was \$100.8 million, a decrease of \$8.3 million when compared to cash on June 30, 2017.
- During the quarter the Company purchased approximately \$2.0 million of fixed assets, primarily related to our DFI solution.
- Cash provided by operations during the quarter was approximately \$5.3 million.
- For the quarter, the Company spent \$8.6 million on 566 thousand shares to repurchase common stock on the open market as part of our Stock Repurchase Program. Additionally, the Company spent \$0.6 million to purchase 34 thousand shares to cover employee taxes on restricted stock grants released.
- Trade Accounts Receivable balance at the end of the quarter was \$32.2 million, a decrease of \$0.8 million when compared to the previous quarter. The Unbilled Accounts Receivable balance (current & long-term) was \$29.8 million at the end of the quarter, a decrease of approximately \$0.9 million from the prior quarter.
- Of the \$29.8 million of Unbilled Accounts Receivable at the end of the quarter, we expect approximately \$20.7 million to be billed in the next twelve months of which more than 36% will be billed during Q4.
- Of the \$62.0 million of total Receivables, \$7.9 million, or 13%, was aged more than 30 days. Since the end of the quarter, \$2.8 million of Trade Receivables has been collected as of the date of this report.
- The quarter-over-quarter decrease in Accounts Receivable and DSO is primarily driven by improved collections, particularly on business in China.

# Non-GAAP Presentation

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In addition to providing results that are determined in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP), the Company also provides certain non-GAAP financial measures. Non-GAAP net income excludes the effects of non-recurring items (including severance payments), stock-based compensation expenses, amortization of acquired technology and other acquired intangible assets, and their related income tax effects, as applicable, as well as adjusts for the non-cash portion of income taxes. EBITDAR is calculated by taking GAAP net income, adding back the effects of non-recurring items, stock-based compensation expenses, amortization of acquired technology and other acquired intangibles, depreciation expense and income tax provision (benefit). These non-GAAP financial measures are used by management internally to measure the Company's profitability and performance. PDF Solutions' management believes that these non-GAAP measures provide useful supplemental measures to investors regarding the Company's ongoing operations in light of the fact that none of these categories of expense has a current effect on the future uses of cash (with the exception of certain non-recurring items) nor do they impact the generation of current or future revenues. These non-GAAP results should not be considered an alternative to, or a substitute for, GAAP financial information, and may be different from similarly titled non-GAAP measures used by other companies. In particular, these non-GAAP financial measures are not a substitute for GAAP measures of income or loss as a measure of performance, or to cash flows from operating, investing and financing activities as a measure of liquidity. Management uses these non-GAAP financial measures internally to measure profitability and performance; these non-GAAP measures are presented here to give investors an opportunity to see the Company's financial results as viewed by management. A detailed reconciliation of the adjustments made to comparable GAAP measures is included herein.

# Q3 2017 – Reconciliation of GAAP to Non-GAAP Net Income

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in thousands (except for shares and per share amounts)

	<u>Q3-17</u>
GAAP net income	\$ 590
Adjustments to reconcile GAAP net income to non-GAAP net income:	
Stock-based compensation expense	2,949
Amortization of acquired technology	136
Amortization of other acquired intangible assets	107
Non-recurring severance payments	370
Adjustment for Non-Cash items in Income Tax Expense	817
Tax Adjustment for Non-GAAP items	<u>(1,407)</u>
Non-GAAP net income	<u>\$ 3,562</u>
GAAP net income per diluted share	\$ 0.02
Non-GAAP net income per diluted share	\$ 0.11
Shares used in diluted shares calculation (in millions)	33.0

# Reconciliation of GAAP to Non-GAAP for Prior Quarters

in thousands (except for shares and per share amounts)

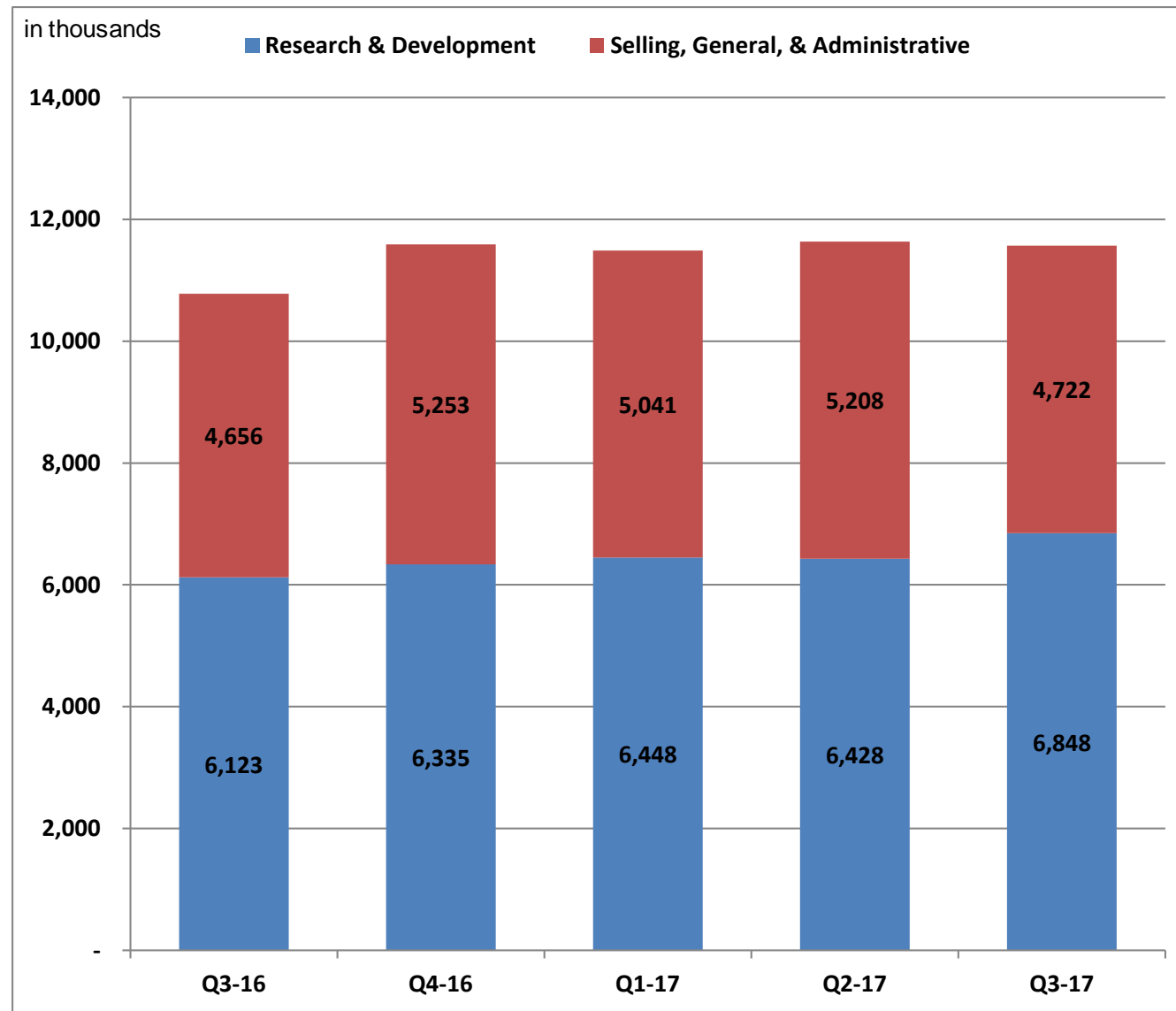
	<u>9-Month Period</u>			<u>9-Month Period</u>		
	<u>Q1-16</u>	<u>Q2-16</u>	<u>Q3-16</u>	<u>Q1-17</u>	<u>Q2-17</u>	<u>Q3-17</u>
GAAP net income	\$ 2,061	\$ 2,133	\$ 1,984	\$ 517	\$ 189	\$ 590
Adjustments to reconcile GAAP net income to non-GAAP net income:						
Stock-based compensation expense	2,666	2,292	2,977	2,884	2,904	2,949
Amortization of acquired technology	96	96	86	96	96	136
Amortization of other acquired intangible assets	117	117	106	92	92	107
Non-recurring severance payments	-	-	-	-	-	370
Adjustment for Non-Cash items in Income Tax Expense	1,265	1,261	1,382	835	998	817
Tax Adjustment for Non-GAAP items	(966)	(651)	(1,146)	(1,830)	(1,627)	(1,407)
Non-GAAP net income	<u>\$ 5,239</u>	<u>\$ 5,248</u>	<u>\$ 5,389</u>	<u>\$ 2,594</u>	<u>\$ 2,652</u>	<u>\$ 3,562</u>
GAAP net income per diluted share	\$ 0.07	\$ 0.07	\$ 0.06	\$ 0.02	\$ 0.01	\$ 0.02
Non-GAAP net income per diluted share	\$ 0.16	\$ 0.16	\$ 0.17	\$ 0.08	\$ 0.08	\$ 0.11
Shares used in diluted shares calculation (in millions)	31.8	32.1	32.6	33.6	33.4	33.0

# Non-GAAP Expenses – Quarterly Trend Through Q3 2017

in thousands

<b>NON-GAAP EXPENSES:</b>	<b><u>Q1-16</u></b>	<b><u>Q2-16</u></b>	<b><u>Q3-16</u></b>	<b><u>Q4-16</u></b>	<b><u>Q1-17</u></b>	<b><u>Q2-17</u></b>	<b><u>Q3-17</u></b>
<b>COST OF SALES</b>	9,025	9,603	10,175	10,845	10,143	10,213	10,961
<b>OPERATING EXPENSES</b>							
<b>Research &amp; Development</b>	5,605	6,408	6,123	6,335	6,448	6,428	6,848
<b>Selling, General, &amp; Administrative</b>	4,249	4,410	4,656	5,253	5,041	5,208	4,722
<b>TOTAL OPERATING EXPENSES</b>	<b>9,854</b>	<b>10,818</b>	<b>10,779</b>	<b>11,589</b>	<b>11,489</b>	<b>11,636</b>	<b>11,570</b>

# Non-GAAP Operating Expenses – Quarterly Trend Through Q3 2017



## Q3 2017 CFO Commentary – Non-GAAP Expenses

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- On a Non-GAAP basis, Cost of Sales was \$11 million, which was approximately \$0.7 million higher than the prior quarter.
- Total Non-GAAP Operating Expenses, at \$11.6 million, were approximately the same as the prior quarter, and 44% of total revenues, down 4% from the prior quarter.
- Non-GAAP R&D expenses totaled \$6.8 million, \$0.4 million higher than the prior quarter.
- Non-GAAP R&D expenses as a percent of revenue were 26%, approximately flat compared to the prior quarter.
- Non-GAAP SG&A expenses totaled \$4.7 million, \$0.5 million lower than the prior quarter.
- Non-GAAP SG&A expenses as a percent of revenue were 18%, down 3% from the prior quarter.
- Cash tax liabilities for Non-GAAP presentation were \$0.3 million. This represents an effective cash tax rate of 100% of pre-tax GAAP income.



# Non-GAAP Performance Measures – Quarterly Trend Through Q3 2017

in thousands (except for shares, percent of revenue, and EPS)

	<u>Q3-15</u>	<u>Q4-15</u>	<u>Q1-16</u>	<u>Q2-16</u>	<u>Q3-16</u>	<u>Q4-16</u>	<u>Q1-17 Act</u>	<u>Q2-17 Act</u>	<u>Q3-17 Act</u>
GROSS MARGIN (Non-GAAP)	14,745	15,162	16,056	17,086	17,084	17,588	14,146	14,075	15,556
Gross Margin % (Non-GAAP)	62%	63%	64%	64%	63%	62%	58%	58%	59%
Pro Forma Net Income	5,261	5,335	5,239	5,246	5,390	5,593	2,594	2,652	3,562
EPS (Non-GAAP)	0.16	0.17	0.16	0.16	0.17	0.17	0.08	0.08	0.11
Diluted Weighted Avg Shares (M)	32.1	31.9	31.8	32.1	32.6	33.3	33.6	33.4	33.0
EBITDAR	6,942	7,073	6,730	7,075	7,165	7,377	3,518	3,662	5,145

## Q3 2017 CFO Commentary – Non-GAAP Performance Measures

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- Non-GAAP gross margin was 59%, up 1% over the prior quarter.
- Total non-GAAP net income was \$3.6 million, approximately \$0.9 million higher compared to the prior quarter.
- Non-GAAP EPS was \$0.11 cents per fully diluted share as compared to \$0.08 cents in the prior quarter.
- Fully diluted shares outstanding were 33.0 million for the quarter.
- EBITDAR was \$5.1 million compared to \$3.7 million in the prior quarter.

## Q4 2017 – Outlook

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- We expect total Q4 revenues to be approximately in-line with Q3.
- We expect Q4 Gainshare revenues to be approximately flat quarter to quarter.
- Continued growth in our Exensio solution should offset the non-recurrence of previously deferred project revenues recognized in Q3.
- Total spending should also be approximately in-line with Q3.