

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended **September 30, 2017**

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: **001-36384**

THE RUBICON PROJECT, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

20-8881738

(I.R.S. Employer Identification No.)

12181 Bluff Creek Drive, 4th Floor

Los Angeles, CA 90094

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code:

(310) 207-0272

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes 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)

Emerging growth company

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

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

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

Class	Outstanding as of October 30, 2017
Common Stock, \$0.00001 par value	49,791,391

**THE RUBICON PROJECT, INC.
QUARTERLY REPORT ON FORM 10-Q**

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PART I. FINANCIAL INFORMATION**Item 1. Condensed Consolidated Financial Statements**

THE RUBICON PROJECT, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)
(unaudited)

	September 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 99,525	\$ 149,423
Marketable securities	39,480	40,550
Accounts receivable, net	132,958	192,064
Prepaid expenses and other current assets	10,500	9,540
TOTAL CURRENT ASSETS	282,463	391,577
Property and equipment, net	37,448	36,246
Internal use software development costs, net	13,617	16,522
Other assets, non-current	3,239	2,921
Intangible assets, net	18,122	6,804
Goodwill	—	65,705
TOTAL ASSETS	\$ 354,889	\$ 519,775
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 165,783	\$ 214,903
Other current liabilities	3,046	3,534
TOTAL CURRENT LIABILITIES	168,829	218,437
Deferred tax liability, net	42	42
Other liabilities, non-current	1,817	1,783
TOTAL LIABILITIES	170,688	220,262
Commitments and contingencies (Note 10)		
STOCKHOLDERS' EQUITY		
Preferred stock, \$0.00001 par value, 10,000 shares authorized at September 30, 2017 and December 31, 2016; 0 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	—	—
Common stock, \$0.00001 par value; 500,000 shares authorized at September 30, 2017 and December 31, 2016; 49,785 and 49,378 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	—	—
Additional paid-in capital	414,081	398,787
Accumulated other comprehensive income (loss)	87	(273)
Accumulated deficit	(229,967)	(99,001)
TOTAL STOCKHOLDERS' EQUITY	184,201	299,513
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 354,889	\$ 519,775

The accompanying notes to unaudited condensed consolidated financial statements are an integral part of these statements.

THE RUBICON PROJECT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)
(unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Revenue	\$ 35,211	\$ 65,811	\$ 124,148	\$ 205,554
Expenses:				
Cost of revenue	12,985	17,798	41,371	52,121
Sales and marketing	12,503	21,635	39,660	64,879
Technology and development	11,580	12,513	36,377	38,250
General and administrative	13,644	16,238	43,079	53,233
Restructuring and other exit costs	—	—	5,959	—
Impairment of goodwill	90,251	—	90,251	—
Total expenses	140,963	68,184	256,697	208,483
Loss from operations	(105,752)	(2,373)	(132,549)	(2,929)
Other (income) expense:				
Interest income, net	(269)	(134)	(664)	(359)
Other income	(123)	(191)	(502)	(388)
Foreign exchange (gain) loss, net	242	(21)	1,093	(338)
Total other income, net	(150)	(346)	(73)	(1,085)
Loss before income taxes	(105,602)	(2,027)	(132,476)	(1,844)
Benefit for income taxes	(2,031)	(5,557)	(1,510)	(4,981)
Net income (loss)	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137
Net income (loss) per share:				
Basic	\$ (2.11)	\$ 0.07	\$ (2.69)	\$ 0.07
Diluted	\$ (2.11)	\$ 0.07	\$ (2.69)	\$ 0.06
Weighted-average shares used to compute net income (loss) per share:				
Basic	49,055	47,538	48,726	46,186
Diluted	49,055	48,683	48,726	49,126

The accompanying notes to unaudited condensed consolidated financial statements are an integral part of these statements.

THE RUBICON PROJECT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)
(unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Net income (loss)	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137
Other comprehensive income (loss):				
Unrealized gain (loss) on investments, net of tax of \$0 for the nine months ended September 30, 2017 and 2016	3	(7)	3	77
Foreign currency translation adjustments	87	(54)	357	(165)
Other comprehensive income (loss)	90	(61)	360	(88)
Comprehensive income (loss)	<u>\$ (103,481)</u>	<u>\$ 3,469</u>	<u>\$ (130,606)</u>	<u>\$ 3,049</u>

The accompanying notes to unaudited condensed consolidated financial statements are an integral part of these statements.

THE RUBICON PROJECT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)
(unaudited)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balance at December 31, 2016	49,378	\$ —	\$ 398,787	\$ (273)	\$ (99,001)	\$ 299,513
Exercise of common stock options	101	—	391	—	—	391
Restricted stock awards, net	(134)	—	—	—	—	—
Shares withheld related to net share settlement	(367)	—	(2,067)	—	—	(2,067)
Issuance of common stock related to RSU vesting	718	—	—	—	—	—
Issuance of common stock related to Employee Stock Purchase Plan	89	—	444	—	—	444
Stock-based compensation	—	—	16,526	—	—	16,526
Other comprehensive income	—	—	—	360	—	360
Net loss	—	—	—	—	(130,966)	(130,966)
Balance at September 30, 2017	49,785	\$ —	\$ 414,081	\$ 87	\$ (229,967)	\$ 184,201

The accompanying notes to unaudited condensed consolidated financial statements are an integral part of these statements.

THE RUBICON PROJECT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(unaudited)

	Nine Months Ended	
	September 30, 2017	September 30, 2016
OPERATING ACTIVITIES:		
Net income (loss)	\$ (130,966)	\$ 3,137
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	27,154	29,362
Stock-based compensation	16,188	22,048
Impairment of goodwill	90,251	—
Loss on disposal of property and equipment	269	5
Provision for doubtful accounts	482	558
Unrealized foreign currency gains, net	372	—
Deferred income taxes	(1,453)	(4,985)
Changes in operating assets and liabilities, net of effect of business acquisitions:		
Accounts receivable	58,876	65,025
Prepaid expenses and other assets	(1,478)	(3,276)
Accounts payable and accrued expenses	(49,972)	(63,141)
Other liabilities	(510)	78
Net cash provided by operating activities	<u>9,213</u>	<u>48,811</u>
INVESTING ACTIVITIES:		
Purchases of property and equipment	(14,554)	(11,393)
Capitalized internal use software development costs	(6,127)	(7,526)
Acquisitions, net of cash acquired	(38,610)	(238)
Investments in available-for-sale securities	(66,419)	(22,722)
Maturities of available-for-sale securities	67,650	20,600
Net cash used in investing activities	<u>(58,060)</u>	<u>(21,279)</u>
FINANCING ACTIVITIES:		
Proceeds from exercise of stock options	391	13,796
Proceeds from issuance of common stock under employee stock purchase plan	444	1,137
Taxes paid related to net share settlement	(2,067)	(4,886)
Net cash provided by (used in) financing activities	<u>(1,232)</u>	<u>10,047</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH, CASH EQUIVALENTS AND RESTRICTED CASH	186	(71)
CHANGE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	(49,893)	37,508
CASH, CASH EQUIVALENTS AND RESTRICTED CASH — Beginning of period	149,498	116,832
CASH, CASH EQUIVALENTS AND RESTRICTED CASH — End of period	\$ 99,605	\$ 154,340
SUPPLEMENTAL DISCLOSURES OF OTHER CASH FLOW INFORMATION:		
Capitalized assets financed by accounts payable and accrued expenses	\$ 2,065	\$ 1,754
Capitalized stock-based compensation	\$ 338	\$ 772

The accompanying notes to unaudited condensed consolidated financial statements are an integral part of these statements.

THE RUBICON PROJECT, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

Note 1—Organization and Summary of Significant Accounting Policies

Company Overview

The Rubicon Project, Inc., or Rubicon Project or the Company, was formed on April 20, 2007 in Delaware and began operations in April 2007. The Company is headquartered in Los Angeles, California.

The Company pioneered advertising automation technology and is one of the world's largest advertising exchanges. The Company helps websites and applications thrive by giving them tools and expertise to sell ads easily and safely. In addition, the world's leading agencies and brands rely on the Company's technology to execute billions of advertising transactions each month.

The Company delivers value to buyers and sellers of digital advertising through the Company's proprietary advertising automation solution, which provides critical functionality to both buyers and sellers. The advertising automation solution consists of applications for sellers, including providers of websites, mobile applications and other digital media properties, and their representatives, to sell their advertising inventory; applications for buyers, including advertisers, agencies, agency trading desks, demand-side platforms, and ad networks, to buy advertising inventory; and a marketplace over which such transactions are executed. This solution incorporates proprietary machine-learning algorithms, sophisticated data processing, high-volume storage, detailed analytics capabilities, and a distributed infrastructure. Together, these features form the basis for the Company's automated advertising solution that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the advertising inventory managed on the Company's platform.

Basis of Presentation and Summary of Significant Accounting Policies

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with United States Generally Accepted Accounting Principles, or GAAP, for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair statement of the results for the interim period presented have been included. Operating results for the nine months ended September 30, 2017 are not necessarily indicative of the results that may be expected for any future interim period, the year ending December 31, 2017, or for any future year.

The condensed consolidated balance sheet at December 31, 2016 has been derived from the audited financial statements at that date, but does not include all of the disclosures required by GAAP. The accompanying condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and notes thereto for the year ended December 31, 2016 included in its 2016 Annual Report on Form 10-K.

There have been no significant changes in the Company's accounting policies from those disclosed in its audited consolidated financial statements and notes thereto for the year ended December 31, 2016 included in its Annual Report on Form 10-K with the exception of accounting for goodwill as described below.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation. Specifically, this includes amounts reclassified to conform to the current year presentation in the condensed consolidated statements of cash flows.

Revenue Recognition

The Company generates revenue from buyers and sellers who use its solution for the purchase and sale of advertising inventory. The Company's solution enables buyers and sellers to purchase and sell advertising inventory by matching buyers and sellers, and by establishing rules and parameters for auctions of advertising inventory. Buyers use the Company's solution to reach their intended audiences by buying advertising inventory that the Company makes available from sellers through its solution. Sellers use the Company's solution to monetize their inventory. The Company recognizes revenue upon fulfillment of its contractual obligations in connection with a completed transaction, subject to satisfying all other revenue recognition criteria, including (i) persuasive evidence of an arrangement existing, (ii) delivery having occurred or services having been rendered, (iii) the fees being fixed or determinable, and (iv) collectability being reasonably assured, although in some cases, payments are handled directly between buyers and sellers or third parties making seller inventory available. The Company generally bills and collects the full purchase price of impressions from buyers, together with other fees, if applicable. The Company reports revenue on a net basis for arrangements in which it has determined that it does not act as the principal in the purchase and sale of advertising inventory because pricing is determined through the Company's auction process or directly between a buyer and a seller and the Company is not the primary obligor. In some cases, the Company generates revenue directly from sellers who maintain the primary relationship with buyers and utilize the Company's solution to transact and increase the monetization of their activities. The Company reports

revenue on a net basis for these activities. The Company reported revenue on a gross basis for revenue associated with its intent marketing solution, which the Company ceased providing in the first quarter of 2017. For its intent marketing solution, the Company determined that it acted as the principal in the purchase and sale of advertising inventory because the Company had direct contractual relationships with and managed advertising campaigns on behalf of the buyer by acting as the primary obligor in the purchase of advertising inventory, the Company exercised discretion in establishing prices, the Company had credit risk, and the Company independently selected and purchased inventory from the seller. For quarters ending after March 31, 2017, all the Company's revenue is reported on a net basis.

The Company's accounts receivable are recorded at the amount of gross billings to buyers, net of allowances, for the amounts the Company is responsible to collect, and the Company's accounts payable related to amounts due to sellers are recorded at the net amount payable to sellers. Accordingly, both accounts receivable and accounts payable appear large in relation to revenue reported on a net basis.

Goodwill

Goodwill represents the excess of the aggregate fair value of the consideration transferred in a business combination over the fair value of the assets acquired, net of liabilities assumed. Goodwill is not amortized, but is subject to impairment testing conducted annually during the fourth quarter or more frequently if events or changes in circumstances indicate that goodwill may be impaired. For purposes of goodwill impairment testing, the Company operates as a single operating segment and has identified a single reporting unit.

In January 2017, the FASB issued guidance on goodwill impairment testing. The new guidance reduces the complexity of goodwill impairment tests by no longer requiring entities to determine goodwill impairment by calculating the implied fair value of goodwill by assigning the fair value of the company to all of its assets and liabilities as if the Company had been acquired in a business combination. The Company adopted the provisions of this guidance during the three-month period ended March 31, 2017. Testing goodwill for impairment involves a quantitative analysis whereby the estimated fair value of the Company is compared with its respective carrying amount, including goodwill. However, prior to performing this quantitative goodwill impairment test, the Company has the option to first assess qualitative factors to determine whether or not it is necessary to perform the quantitative goodwill impairment test. If the Company chooses the qualitative option, the Company is not required to perform the quantitative goodwill impairment test unless it has determined, based on the qualitative assessment, that it is more likely than not that the fair value is less than its carrying amount. If the quantitative impairment test is required or chosen, the impairment test involves comparing the estimated fair value of the Company with its respective carrying amount, including goodwill. If the estimated fair value of the Company exceeds its carrying amount, including goodwill, goodwill is considered not to be impaired and no additional steps are necessary. If the fair value is less than the carrying amount, including goodwill, then an impairment adjustment must be recorded.

In the third quarter of 2017, the Company identified potential indications of impairment and performed a quantitative goodwill impairment assessment and determined that the fair value of the Company was less than the carrying value, including goodwill. As a result, the Company recorded a goodwill impairment charge of \$90.3 million during the third quarter of 2017. Refer to Note 5 "Goodwill and Intangible Assets" for a description of the methods used to compute the goodwill impairment charge in the third quarter of 2017.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported and disclosed financial statements and accompanying footnotes. Actual results could differ materially from these estimates.

Recent Accounting Pronouncements

Under the Jumpstart Our Business Startups Act, or the JOBS Act, the Company meets the definition of an emerging growth company. The Company has irrevocably elected to opt out of the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the JOBS Act.

In May 2014, the Financial Accounting Standards Board, or FASB, issued new accounting guidance that amends the guidance for revenue recognition to replace numerous industry-specific requirements and converges areas under the "Revenue from Contracts with Customers" topic with those of the International Financial Reporting Standards. The guidance implements a five-step process for customer contract revenue recognition that focuses on transfer of control, as opposed to transfer of risk and rewards. The amendment also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenues and cash flows from contracts with customers. Other major provisions include the capitalization and amortization of certain contract costs, ensuring the time value of money is considered in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. Entities can transition to the standard either retrospectively or as a cumulative-effect adjustment as of the date of adoption ("modified retrospective"). The guidance is effective for reporting periods beginning after December 15, 2017, with early adoption permitted only as of annual reporting periods beginning after December 15,

2016. Since its issuance, the FASB has amended several aspects of the new guidance including provisions that clarify the implementation guidance on principal versus agent considerations in the new revenue recognition standard. The amendments clarify how an entity should identify the unit of accounting (i.e., the specified good or service) for the principal versus agent evaluation and how it should apply the control principle to certain types of arrangements. Management has completed an initial assessment to determine the impact on the Company's condensed consolidated financial statements by analyzing the Company's primary revenue generating transaction types. Based on the preliminary assessment of applicable differences in the standard, management is further analyzing the treatment of volume discounts and tiered pricing. The Company intends to adopt the new standard on a modified retrospective basis in the first quarter of 2018.

In February 2016, the FASB issued new accounting guidance that requires an entity to recognize right-of-use assets and lease liabilities on its balance sheet and disclose key information about leasing arrangements. This guidance offers specific accounting guidance for a lessee, a lessor, and sale and leaseback transactions. Lessees and lessors are required to disclose qualitative and quantitative information about leasing arrangements to enable a user of the financial statements to assess the amount, timing and uncertainty of cash flows arising from leases. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. This guidance is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period, and requires a modified retrospective adoption, with early adoption permitted. The Company is currently evaluating the effect this guidance will have on its condensed consolidated financial statements and related disclosures, and anticipates the guidance to result in increases in its assets and liabilities as most of its operating lease commitments will be subject to the new standard and recognized as right-of-use assets and lease liabilities.

In October 2016, the FASB issued new guidance intended to improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. Under the new guidance, entities should recognize the income tax consequences of such transfers when the transfers occur. The new guidance will be effective for interim and annual periods beginning after December 15, 2017, and early adoption is permitted. The guidance requires application using a modified retrospective transition method. The Company does not expect the guidance to have a material impact on the condensed consolidated financial statements.

In November 2016, the FASB issued new guidance that requires a company to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents in the statement of cash flow. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The new guidance will be effective for interim and annual periods beginning after December 15, 2017, and early adoption is permitted, including early adoption in an interim period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. The guidance requires application using a retrospective transition method to each period presented. The Company has early adopted this guidance during the nine months ended September 30, 2017 and has reflected the changes in the current and prior period statement of cash flow.

In January 2017, the FASB issued amended guidance for business combinations. The new pronouncement changes the definition of a business with the objective of adding guidance to assist companies with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017, and will be applied prospectively to any transactions occurring within the period of adoption. Early adoption is permitted, including for interim or annual periods in which the financial statements have not been issued or made available for issuance. Subsequent to adoption, the Company will apply this guidance to acquisitions or disposals occurring in the period of adoption and thereafter. The Company does not expect the guidance to have a material impact on its condensed consolidated financial statements.

In May 2017, the FASB issued new guidance for modification accounting of stock-based compensation expense. The new pronouncement provides guidance about which changes to the terms and conditions of a share-based payment award require an entity to apply modification accounting. The guidance notes that an entity should account for the effects of a modification unless the fair value of the modified award is the same as the fair value of the original award immediately before the original award was modified and it did not change any of the inputs to the valuation technique used to value the award, the vesting conditions did not change, and the classification of the award as either equity or liability did not change. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017, and will be applied prospectively to any transactions occurring within the period of adoption. Early adoption is permitted, including for interim or annual periods in which the financial statements have not been issued or made available for issuance. The Company is currently assessing the impact this guidance will have on its condensed consolidated financial statements.

Note 2—Net Income (Loss) Per Share

The following table presents the basic and diluted net income (loss) per share attributable to common stockholders:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
(in thousands, except per share data)				
Basic EPS:				
Net income (loss) attributable to common stockholders	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137
Weighted-average common shares outstanding	49,800	48,935	49,638	48,273
Weighted-average unvested restricted shares	(745)	(1,231)	(912)	(1,563)
Weighted-average escrow shares	—	(166)	—	(524)
Weighted-average common shares outstanding used to compute net income (loss) per share	49,055	47,538	48,726	46,186
Basic net income (loss) per share	\$ (2.11)	\$ 0.07	\$ (2.69)	\$ 0.07
Diluted EPS:				
Net income (loss) attributable to common stockholders	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137
Weighted-average common shares used in basic EPS	49,055	47,538	48,726	46,186
Dilutive effect of weighted-average common stock options	—	536	—	1,191
Dilutive effect of weighted-average restricted stock awards	—	138	—	502
Dilutive effect of weighted-average restricted stock units	—	243	—	690
Dilutive effect of weighted-average ESPP	—	58	—	34
Dilutive effect of weighted-average escrow shares	—	170	—	523
Weighted-average shares used to compute diluted net income (loss) per share	49,055	48,683	48,726	49,126
Diluted net income (loss) per share	\$ (2.11)	\$ 0.07	\$ (2.69)	\$ 0.06

The following weighted-average shares have been excluded from the calculation of diluted net income (loss) per share attributable to common stockholders for each period presented because they are anti-dilutive:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
(in thousands)				
Options to purchase common stock	187	—	154	—
Unvested restricted stock awards	130	—	240	—
Unvested restricted stock units	238	—	495	—
ESPP	44	—	49	—
Total shares excluded from net income (loss) per share	599	—	938	—

Note 3—Fair Value Measurements

Fair value represents the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Observable inputs are based on market data obtained from independent sources. The fair value hierarchy is based on the following three levels of inputs, of which the first two are considered observable and the last one is considered unobservable:

- Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 – Unobservable inputs.

The table below sets forth a summary of financial instruments that are measured at fair value on a recurring basis at September 30, 2017:

	Fair Value Measurements at Reporting Date Using			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in thousands)			
Cash equivalents	\$ 17,189	\$ 11,394	\$ 5,795	\$ —
Corporate debt securities	\$ 22,008	\$ —	\$ 22,008	\$ —
U.S. Treasury, government and agency debt securities	\$ 17,472	\$ 17,472	\$ —	\$ —

The table below sets forth a summary of financial instruments that are measured at fair value on a recurring basis at December 31, 2016:

	Fair Value Measurements at Reporting Date Using			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in thousands)			
Cash equivalents	\$ 15,776	\$ 7,781	\$ 7,995	\$ —
Corporate debt securities	\$ 17,314	\$ —	\$ 17,314	\$ —
U.S. Treasury, government and agency debt securities	\$ 23,236	\$ 23,236	\$ —	\$ —

At September 30, 2017 and December 31, 2016, cash equivalents of \$17.2 million and \$15.8 million, respectively, consisted of money market funds, commercial paper, treasury and agency debt securities with original maturities of three months or less. The carrying amounts of cash equivalents are classified as Level 1 or Level 2 depending on whether or not their fair values are based on quoted market prices for identical securities that are traded in an active market. The commercial paper included in cash equivalents is classified as Level 2 since its fair value is not based on quoted market prices for identical securities that are traded in an active market, but rather is derived from similar securities. Corporate debt securities included in marketable securities on the balance sheet whose fair values are not based on quoted market prices for identical securities that are traded in an active market, but rather are derived from similar securities, are classified as Level 2 as well. The fair values of the Company's U.S. treasury, government and agency debt securities, are based on quoted market prices and classified as Level 1.

Note 4—Other Balance Sheet Amounts

Investments in marketable securities as of September 30, 2017 consisted of the following:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
(in thousands)				
Available-for-sale—short-term:				
U.S. Treasury, government and agency debt securities	\$ 17,470	\$ 2	\$ —	\$ 17,472
Corporate debt securities	22,008	—	—	22,008
Total	\$ 39,478	\$ 2	\$ —	\$ 39,480

Investments in marketable securities as of December 31, 2016 consisted of the following:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
(in thousands)				
Available-for-sale—short-term:				
U.S. Treasury, government and agency debt securities	\$ 23,237	\$ 1	\$ (2)	\$ 23,236
Corporate debt securities	17,314	—	—	17,314
Total	\$ 40,551	\$ 1	\$ (2)	\$ 40,550

The Company's available-for-sale securities had a weighted remaining contractual maturity of 0.3 years as of September 30, 2017 and December 31, 2016. For the three and nine months ended September 30, 2017, there were no realized gains (losses) and there were no unrealized holding gains (losses) reclassified out of accumulated other comprehensive loss into the condensed consolidated statements of operations for the sale of available-for-sale investments.

Accounts payable and accrued expenses included the following:

	September 30, 2017	December 31, 2016
(in thousands)		
Accounts payable—seller	\$ 152,401	\$ 197,261
Accounts payable—trade	5,773	7,930
Accrued employee-related payables	7,609	9,712
Total accounts payable and accrued expenses	\$ 165,783	\$ 214,903

Cash, cash equivalents and restricted cash included in the cash flow is as follows:

	September 30, 2017	December 31, 2016
(in thousands)		
Cash and cash equivalents	\$ 99,525	\$ 149,423
Restricted cash (included in "prepaid expenses and other current assets")	80	75
Total cash, cash equivalents, and restricted cash	\$ 99,605	\$ 149,498

Note 5—Goodwill and Intangible Assets

The Company has continued to experience a decrease in its stock price and market capitalization. In addition, during the third quarter of 2017, the Company identified certain developments that negatively impacted Rubicon Project's near-term outlook for its business. These developments included the strategic decision to make voluntary reductions in the fees the Company charges buyers in open market waterfall RTB transactions, header bidding, and direct pressure from buyers and sellers, which has recently accelerated dramatically. These developments caused Rubicon Project to revisit the assumptions supporting its cash flow projections. The Company concluded that these developments, together with the continued decline in the Company's market capitalization below the carrying value of its net assets, represented an indication of impairment that required it to perform a quantitative assessment of the fair value of the Company and its net assets during the third quarter of fiscal year 2017. The Company, with the assistance of a valuation consultant, performed a fair value assessment of its net assets using a weighting of fair values derived from income and market approaches.

The income approach is a forward-looking approach to estimating fair value and utilizes the 2017 remaining year forecast, projections for growth off that base, and a terminal growth rate. The discounted cash flow method is used for the income approach. The cash flows were discounted at a 16.2% rate, estimated as the weighted average cost of capital for Rubicon Project. The value of net operating losses and the excess working capital were then added in to determine the fair value utilizing the income approach.

The market approach is based upon a review of private and public company control transactions involving companies that are comparable to Rubicon Project. The Company performed two analyses under the market approach—a control premium analysis and a similar transaction analysis. In each of these analyses, the Company identified merger or acquisition transactions that were completed over the past three years involving targets that operate within the “Advertising” or “Internet Software and Services” industries and where the buyer was a strategic buyer. In the first, a control premium analysis, the Company calculated a control premium paid in each of these transactions. After analyzing the comparable transactions, the Company applied a control premium of 15% to its adjusted public equity value to derive the fair value of its net assets. An additional method under the market approach, the similar transactions method, was utilized to determine the fair value of the Company's net assets under a strategic buyer purchase scenario. In this analysis target companies were compared to the Company, and multiples paid in transactions were analyzed and applied to the Company. For this analysis, the Company focused on the EBITDA multiples paid and applied the selected multiples to Rubicon Project's adjusted EBITDA for the twelve months ended September 30, 2017. Based on the results of this analysis, an adjusted EBITDA multiple of 2.0x was applied to calculate the fair value of the Company's net assets. In determining the comparability of publicly-traded companies, several factors were analyzed, including products and solutions, markets, growth patterns, relative size, earnings trends and other financial characteristics.

After deriving the fair value of the Company's net assets using the three methodologies (one income approach and two market approaches) described above, the Company compared the fair value to the carrying value of \$274.4 million, and recorded an impairment charge of \$90.3 million during the three months ended September 30, 2017.

As a result of the indications of impairment noted above, the Company also performed an interim impairment assessment of its long-lived assets, including intangible assets. Under this assessment, the carrying value of the Company's long-lived assets was compared to the undiscounted cash flows expected to be generated by the asset group over its remaining life. Based on this assessment, there was no impairment of long-lived assets.

Details of the Company's goodwill was as follows:

	September 30, 2017	December 31, 2016
	(in thousands)	
Beginning balance	\$ 65,705	\$ 65,705
Additions from the acquisition of nToggle	24,546	—
Impairment of goodwill	(90,251)	—
Ending balance	\$ —	\$ 65,705

Details of the Company's intangible assets other than goodwill were as follows:

	September 30, 2017	December 31, 2016
	(in thousands)	
Amortizable intangible assets:		
Developed technology	\$ 26,187	\$ 13,418
Customer relationships	2,880	3,330
Non-compete agreements	690	4,990
Trademarks	20	—
Total identifiable intangible assets, gross	29,777	21,738
Accumulated amortization—intangible assets:		
Developed technology	(8,698)	(7,652)
Customer relationships	(2,880)	(2,837)
Non-compete agreements	(74)	(4,445)
Trademarks	(3)	—
Total accumulated amortization—intangible assets	(11,655)	(14,934)
Total identifiable intangible assets, net	\$ 18,122	\$ 6,804

Amortization of intangible assets for the three and nine months ended September 30, 2017 were \$1.2 million and \$3.5 million, respectively. The estimated remaining amortization expense associated with the Company's intangible assets was as follows as of September 30, 2017:

Fiscal Year	Amount
	(in thousands)
Remaining 2017	\$ 1,261
2018	5,047
2019	4,650
2020	2,826
2021	2,826
2022 and thereafter	1,512
Total	\$ 18,122

Note 6 —Business Combination

On July 14, 2017, the Company completed the merger of nToggle, Inc. ("nToggle") with Caviar Acquisition Corp., a wholly owned subsidiary of the Company, with nToggle surviving as a wholly owned subsidiary of Rubicon Project. nToggle is a Boston, Massachusetts based programmatic advertising company with traffic-shaping technology. The primary reason for the acquisition was to acquire technology, know-how and personnel that will enable the Company to offer services that make it easier and more cost-effective for buyers to find the inventory they seek among the billions of bid requests they receive. At closing, the Company paid net cash consideration of \$38.6 million to the stockholders, warrant holders, and holders of vested in-the-money options of nToggle. In addition, the Company assumed 432,482 outstanding unvested in-the-money options and 77,499 shares of restricted stock held by continuing employees, and issued an aggregate of 174,117 restricted stock units to the continuing employees under the Company's 2014 Inducement Grant Equity Incentive Plan. The financial results of nToggle have been included in our condensed consolidated financial statements since the date of the acquisition.

The purchase price allocation as of the closing date was based on a preliminary valuation and is subject to revision as more detailed analyses are completed and additional information about the fair value of assets acquired and liabilities assumed becomes available. The major classes of assets and liabilities to which the Company has preliminarily allocated the purchase price were as

follows as of September 30, 2017:

	Amount
	(in thousands)
Cash and cash equivalents	\$ 1,953
Accounts receivable	256
Prepaid and other assets	18
Fixed assets	763
Other non-current assets	82
Intangible assets	14,840
Goodwill	24,546
Total assets acquired	42,458
Accounts payable and accrued expenses	78
Deferred revenue	91
Deferred tax liability, net	1,719
Total liabilities assumed	1,888
Total net assets acquired	\$ 40,570

The Company recognized approximately \$0.3 million of acquisition-related costs during the nine months ended September 30, 2017 that are recorded within General and Administrative expenses in the Company's condensed consolidated statements of operations. As part of the acquisition of nToggle, the Company acquired nToggle's net operating losses of approximately \$9.3 million. In addition, the Company recorded deferred tax liabilities related to acquired intangibles of \$5.5 million net of deferred tax assets of \$3.8 million primarily related to net operating loss carryforwards.

The following table summarizes the components of the acquired intangible assets and estimated useful lives (in thousands, except for estimated useful life):

	September 30, 2017	Estimated Useful Life
Developed technology	\$ 14,130	5
Non-compete agreements	690	2
Trademark & trade name	20	1.5
Total intangible assets acquired	\$ 14,840	

The intangible assets are amortized on a straight-line basis, which approximates the pattern in which the economic benefits are consumed, over their estimated useful lives. Amortization of developed technology is included in cost of revenues, the amortization related to non-compete agreements is included in technology and development, and amortization related to trademark and trade name is included in general and administrative.

Goodwill resulting from the acquisition was primarily attributable to acquired workforce, an increase in development capabilities, increased offerings to customers, and enhanced opportunities for growth and innovation. Refer to Note 5 "Goodwill and Intangible Assets" for a description of the methods used to compute the charge for the impairment of consolidated goodwill of \$90.3 million recorded in the third quarter of 2017. The acquired intangibles and goodwill resulting from the nToggle acquisition are not amortizable for tax purposes.

Unaudited Pro Forma Information

The following table provides unaudited condensed pro forma information to give effect to the nToggle acquisition as if it had occurred on January 1, 2016. The unaudited pro forma information reflects adjustments for additional amortization resulting from the fair value adjustments to assets acquired and liabilities assumed. The pro forma results do not include any anticipated cost synergies or other effects of the integration of nToggle. Accordingly, pro forma amounts are not necessarily indicative of the results that actually would have occurred had the acquisition been completed on the dates indicated, nor is it indicative of the actual or future operating results of the combined company.

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Pro forma revenues	\$ 35,270	\$ 66,022	\$ 125,083	\$ 205,962
Pro forma net income (loss)	\$ (103,895)	\$ 1,827	\$ (134,665)	\$ (2,138)

nToggle's technology was fully integrated into the Company's platform, and its pre-acquisition product will not be offered on a stand-alone basis. As a result, the determination of nToggle's post-acquisition revenue and operating results on a stand-alone basis is impracticable.

Note 7—Stock-Based Compensation

The Company's equity incentive plans provide for the grant of equity awards, including non-statutory or incentive stock options, restricted stock, and restricted stock units, to the Company's employees, officers, directors, and consultants. The Company's board of directors administers the plans. Outstanding options vest based upon continued service at varying rates, but generally over four years from issuance with 25% vesting after one year of service and the remainder vesting monthly thereafter. Restricted stock and restricted stock units vest at varying rates, usually approximately 25% vesting after approximately one year of service and the remainder vesting semi-annually thereafter. Options, restricted stock, and restricted stock units granted under the plans accelerate under certain circumstances for certain participants on a change in control, as defined in the governing plan. An aggregate of 5,306,129 shares remained available for future grants at September 30, 2017 under the plans.

Stock Options

A summary of stock option activity for the nine months ended September 30, 2017 is as follows:

	Shares Under Option	Weighted-Average Exercise Price	Weighted-Average Contractual Life	Aggregate Intrinsic Value
	(in thousands)			(in thousands)
Outstanding at December 31, 2016	3,861	\$ 11.16		
Granted	1,424	\$ 4.20		
Exercised	(101)	\$ 3.88		
Expired	(481)	\$ 12.24		
Forfeited	(122)	\$ 13.26		
Outstanding at September 30, 2017	4,581	\$ 8.99	5.87 years	\$ 1,612
Exercisable at September 30, 2017	2,707	\$ 10.45	4.16 years	\$ 238

The aggregate total intrinsic value of options exercised for the nine months ended September 30, 2017 was \$0.4 million. At September 30, 2017, the Company had unrecognized employee stock-based compensation expense relating to nonvested stock options of approximately \$6.3 million, which is expected to be recognized over a weighted-average period of 2.9 years. The weighted-average grant date fair value per share of stock options granted during the nine months ended September 30, 2017 was \$3.55. Total fair value of options vested during the nine months ended September 30, 2017 was \$3.5 million.

The Company estimates the fair value of stock options that contain service and/or performance conditions using the Black-Scholes option pricing model. The weighted-average input assumptions used by the Company were as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Expected term (in years)	5.25	*	5.76	5.9
Risk-free interest rate	1.88%	*	2.03%	1.43%
Expected volatility	62%	*	57%	48%
Dividend yield	—%	*	—%	—%

* No stock options were granted during the third quarter of 2016.

Restricted Stock

A summary of restricted stock activity for the nine months ended September 30, 2017 is as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
	(in thousands)	
Nonvested shares of restricted stock outstanding at December 31, 2016	1,113	\$ 14.07
Granted	77	\$ 5.07
Canceled	(211)	\$ 12.79
Vested	(259)	\$ 15.05
Nonvested shares of restricted stock outstanding at September 30, 2017	720	\$ 13.12

The aggregate fair value of restricted stock with service conditions that vested during the nine months ended September 30, 2017 was \$1.5 million. At September 30, 2017, the Company had unrecognized stock-based compensation expense for restricted stock with service conditions of \$3.2 million, which is expected to be recognized over a weighted-average period of 1.5 years.

Restricted Stock Units

A summary of restricted stock unit activity for the nine months ended September 30, 2017 is as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
	(in thousands)	
Nonvested restricted stock units outstanding at December 31, 2016	2,903	\$ 13.63
Granted	3,030	\$ 5.76
Canceled	(722)	\$ 11.61
Vested	(718)	\$ 14.18
Nonvested restricted stock units outstanding at September 30, 2017	4,493	\$ 8.56

The weighted-average grant date fair value per share of restricted stock units granted during the nine months ended September 30, 2017 was \$5.76. The aggregate fair value of restricted stock units that vested during nine months ended September 30, 2017 was \$4.1 million. At September 30, 2017, the intrinsic value of nonvested restricted stock units was \$17.4 million. At September 30, 2017, the Company had unrecognized stock-based compensation expense relating to nonvested restricted stock units of approximately \$28.0 million, which is expected to be recognized over a weighted-average period of 3.02 years.

Employee Stock Purchase Plan

In November 2013, the Company adopted the Company's 2014 Employee Stock Purchase Plan, or ESPP. The ESPP is designed to enable eligible employees to periodically purchase shares of the Company's common stock at a discount through payroll deductions of up to 10% of their eligible compensation, subject to any plan limitations. At the end of each six-month offering period, employees' accumulated contributions are applied to purchase shares at a price per share equal to 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the last trading day of the offering period. Offering periods generally commence and end in May and November of each year.

As of September 30, 2017, the Company has reserved 1,569,188 shares of its common stock for issuance under the ESPP.

Stock-Based Compensation Expense

Total stock-based compensation expense recorded in the condensed consolidated statements of operations was as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Cost of revenue	\$ 115	\$ 91	\$ 295	\$ 261
Sales and marketing	1,115	2,054	3,524	6,711
Technology and development	1,122	1,287	3,178	4,461
General and administrative	2,294	3,099	7,631	10,615
Restructuring and other exit costs	—	—	1,560	—
Total stock-based compensation expense	<u>\$ 4,646</u>	<u>\$ 6,531</u>	<u>\$ 16,188</u>	<u>\$ 22,048</u>

Note 8—Restructuring and Other Exit Costs

As part of management's plan to streamline operations and prioritize resources for growth initiatives in the first quarter of 2017, the Company implemented a management restructuring involving the departure of senior leaders and the shut-down of the Company's intent marketing services. For the nine months ended September 30, 2017, in connection with these initiatives, the Company recorded restructuring and other exit costs totaling \$6.0 million for one-time employee termination benefits, operational shut-down costs and other related costs.

The following table summarizes the accrued restructuring liability related to this plan, which is recorded in "Accounts payable and accrued expenses" on the condensed consolidated balance sheet:

	Amount
	(in thousands)
Accrued restructuring and other exit costs at December 31, 2016	\$ 801
Restructuring and other exit costs ⁽¹⁾	5,959
Cash paid for restructuring and other exit costs	(4,965)
Non-cash stock-based compensation for restructuring and other exit costs	(1,560)
Accrued restructuring and other exit costs at September 30, 2017	<u>\$ 235</u>

(1) Restructuring and other exit costs were de minimis for the three months ended September 30, 2017. For the nine months ended September 30, 2017, Restructuring and other exit costs consisted of \$5.1 million in employee termination costs and \$0.9 million in facility closing costs.

The Company expects to pay the majority of the remaining expenses by the fourth quarter of 2017.

Note 9—Income Taxes

In determining quarterly provisions for income taxes, the Company uses the annual estimated effective tax rate applied to the actual year-to-date income. The Company's annual estimated effective tax rate differs from the statutory rate primarily as a result of state taxes, foreign taxes, nondeductible stock option expenses, and changes in the Company's valuation allowance.

The Company recorded income tax benefit of \$2.0 million and \$5.6 million for the three months ended September 30, 2017 and 2016, respectively, and income benefit of \$1.5 million and \$5.0 million for the nine months ended September 30, 2017 and 2016, respectively. The tax benefit for the three and nine months ended September 30, 2017 is primarily the result of the deferred tax liability associated with the nToggle acquisition.

Due to uncertainty as to the realization of benefits from the Company's domestic and certain international deferred tax assets, including net operating loss carryforwards and research and development tax credits, the Company has a full valuation allowance reserved against such assets. The Company intends to continue to maintain a full valuation allowance on the deferred tax assets until there is sufficient evidence to support the reversal of all or some portion of these allowances.

There were no material changes to the Company's unrecognized tax benefits in the nine months ended September 30, 2017, and the Company does not expect to have any significant changes to unrecognized tax benefits through the end of the fiscal year. Because of the Company's history of tax losses, all years remain open to tax audit. During the first quarter of 2017, the Internal Revenue Service commenced an examination of the 2015 tax year.

Note 10—Commitments and Contingencies

Operating Leases

The Company has commitments under non-cancelable operating leases for facilities, certain equipment, and its managed data center facilities. Total rental expenses were \$3.1 million and \$3.0 million for the three months ended September 30, 2017 and 2016, respectively. Total rental expenses were \$9.4 million and \$8.3 million for the nine months ended September 30, 2017 and 2016, respectively. Additionally, expenses for cloud-based services related to data centers were \$0.8 million and \$1.3 million for the three months ended September 30, 2017 and 2016, respectively, and \$3.6 million and \$4.3 million for the nine months ended September 30, 2017 and 2016, respectively. As of September 30, 2017, \$2.9 million of letters of credit associated with office leases were outstanding, none of which have been drawn down.

Purchase Obligations

The Company's purchase obligations or remaining payments due under existing contracts were \$0.8 million as of September 30, 2017.

Guarantees and Indemnification

The Company's agreements with sellers, buyers, and other third parties typically obligate it to provide indemnity and defense for losses resulting from claims of intellectual property infringement, damages to property or persons, business losses, or other liabilities. Generally, these indemnity and defense obligations relate to the Company's own business operations, obligations, and acts or omissions. However, under some circumstances, the Company agrees to indemnify and defend contract counterparties against losses resulting from their own business operations, obligations, and acts or omissions, or the business operations, obligations, and acts or omissions of third parties. For example, because the Company's business interposes the Company between buyers and sellers in various ways, buyers often require the Company to indemnify them against acts and omissions of sellers, and sellers often require the Company to indemnify them against acts and omissions of buyers. In addition, the Company's agreements with sellers, buyers, and other third parties typically include provisions limiting the Company's liability to the counterparty, and the counterparty's liability to the Company. These limits sometimes do not apply to certain liabilities, including indemnity obligations. These indemnity and limitation of liability provisions generally survive termination or expiration of the agreements in which they appear. The Company has also entered into indemnification agreements with its directors, executive officers and certain other officers that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No material demands have been made upon the Company to provide indemnification under such agreements and there are no claims that the Company is aware of that could have a material effect on the Company's condensed consolidated financial statements.

Litigation

The Company and its subsidiaries may from time to time be parties to legal or regulatory proceedings, lawsuits and other claims incident to their business activities and to the Company's status as a public company. Such matters may include, among other things, assertions of contract breach or intellectual property infringement, claims for indemnity arising in the course of the Company's business, regulatory investigations or enforcement proceedings, and claims by persons whose employment has been terminated. Such matters are subject to many uncertainties, and outcomes are not predictable with assurance. Consequently, management is unable to ascertain the ultimate aggregate amount of monetary liability, amounts which may be covered by insurance or recoverable from third parties, or the financial impact with respect to such matters as of September 30, 2017. However, based on management's knowledge as of September 30, 2017, management believes that the final resolution of these matters known at such date, individually and in the aggregate, will not have a material adverse effect upon the Company's condensed consolidated financial position, results of operations or cash flows.

On March 31, 2017, Guardian News & Media Limited (Guardian) issued proceedings (the Complaint) against the Company in the Chancery Division of the High Court of Justice in England & Wales. The Complaint alleges that the Company underpaid Guardian for inventory sold by Guardian through the Company's platform as a result of the fact that the Company charged fees to buyers of that inventory. Guardian claims the Company was precluded from charging buyer fees as a result of the contractual arrangements with Guardian and English agency law principles, as well as representations the Company allegedly made to Guardian. The Complaint claims damages including loss of revenue, interest, and costs, without specifying the amount of damages sought. The Company disputes Guardian's claims and is defending them vigorously, but the Complaint involves disputed facts and complex legal questions, and its outcome is therefore uncertain. Even if Guardian were to prevail in this action, the Company does not believe payment of the damages that may be recoverable by Guardian would have a material adverse effect upon the Company's condensed consolidated financial position, results of operations, or cash flows.

Employment Contracts

The Company has entered into severance agreements with certain employees and officers. The Company may be required to pay severance and accelerate the vesting of certain equity awards in the event of involuntary terminations.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Quarterly Report on Form 10-Q and related statements by the Company contain forward-looking statements, including statements based upon or relating to our expectations, assumptions, estimates, and projections. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "design," "anticipate," "estimate," "predict," "potential," "plan" or the negative of these terms, and similar expressions. Forward-looking statements may include, but are not limited to, statements concerning our anticipated financial performance, including, without limitation, revenue, advertising spend, profitability, net income (loss), Adjusted EBITDA, earnings per share, and cash flow; strategic objectives, including focus on header bidding, mobile, video, Orders, and private marketplace opportunities; investments in our business; development of our technology; introduction of new offerings; the impact of our acquisition of nToggle and its traffic shaping technology on our business; scope and duration of client relationships; the fees we may charge in the future; business mix; sales growth; client utilization of our offerings; our competitive differentiation; our leadership position in the industry; our market share, market conditions, trends, and opportunities; user reach; certain statements regarding future operational performance measures including ad requests, fill rate, advertising spend, take rate, paid impressions, and average CPM; and factors that could affect these and other aspects of our business. These statements are not guarantees of future performance; they reflect our current views with respect to future events and are based on assumptions and estimates and subject to known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from expectations or results projected or implied by forward-looking statements. These risks include, but are not limited to:

- our ability to grow and to manage any growth effectively;
- our ability to develop innovative new technologies and remain a market leader;
- our ability to attract and retain buyers and sellers and increase our business with them;
- our vulnerability to loss of, or reduction in spending by, buyers;
- our ability to maintain and grow a supply of advertising inventory from sellers;
- the effect on the advertising market and our business from difficult economic conditions;
- the freedom of buyers and sellers to direct their spending and inventory to competing sources of inventory and demand;
- our ability to use our solution to purchase and sell higher value advertising and to expand the use of our solution by buyers and sellers utilizing evolving digital media platforms;
- our ability to introduce new offerings and bring them to market in a timely manner in response to client demands and industry trends, including shifts in digital advertising growth from display to mobile channels;
- the increased prevalence of header bidding and its effect on our competitive position;
- our header bidding solution not resulting in revenue growth and causing infrastructure strain and added cost;
- uncertainty of our estimates and expectations associated with new offerings, including header bidding, private marketplace, mobile, video, Orders, automated guaranteed and guaranteed audience solutions, and traffic shaping;
- declining fees and take rate, including as a result of implementation of alternative pricing models in response to market pressures, including demands for reduction or elimination of buyer fees, and the need to grow through advertising spend and fill rate increases rather than pricing increases;
- our ability to compensate for a declining take rate by increasing the volume and/or value of transactions on our platform;
- our vulnerability to the depletion of our cash resources as revenue declines with the reduction in our take rate and as we incur additional investments in technology required to support the increased volume of transactions on our exchange;
- our ability to raise additional capital if needed;
- our limited operating history and history of losses;
- our ability to continue to expand into new geographic markets;
- our ability to adapt effectively to shifts in digital advertising to mobile and video channels and formats;
- increased prevalence of ad-blocking technologies;
- the slowing growth rate of online digital display advertising;
- the growing percentage of online and mobile advertising spending captured by owned and operated sites (such as Facebook and Google);
- the effects, including loss of market share, of increased competition in our market and increasing concentration of advertising spending, including mobile spending, in a small number of very large competitors;

- acts of competitors and other third parties that can adversely affect our business;
- our ability to differentiate our offerings and compete effectively in a market trending increasingly toward commodification, transparency, and disintermediation;
- requests from buyers and sellers for discounts, fee concessions or revisions, rebates, refunds and greater levels of pricing transparency and specificity;
- potential adverse effects of malicious activity such as fraudulent inventory and malware;
- the effects of seasonal trends on our results of operations;
- costs associated with defending intellectual property infringement and other claims;
- our ability to attract and retain qualified employees and key personnel;
- our ability to identify future acquisitions of or investments in complementary companies or technologies and our ability to consummate the acquisitions and integrate such companies or technologies; and
- our ability to comply with, and the effect on our business of, evolving legal standards and regulations, particularly concerning data protection and consumer privacy and evolving labor standards.

We discuss many of these risks and additional factors that could cause actual results to differ materially from those anticipated by our forward-looking statements under the headings "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and elsewhere in this report and in other filings we have made and will make from time to time with the Securities and Exchange Commission, or SEC, including our Annual Report on Form 10-K for the year ended December 31, 2016 and subsequent Quarterly Reports on Form 10-Q. These forward-looking statements represent our estimates and assumptions only as of the date made. Unless required by federal securities laws, we assume no obligation to update any of these forward-looking statements, or to update the reasons actual results could differ materially from those anticipated, to reflect circumstances or events that occur after the statements are made. Without limiting the foregoing, any guidance we may provide will generally be given only in connection with quarterly and annual earnings announcements, without interim updates, and we may appear at industry conferences or make other public statements without disclosing material nonpublic information in our possession. Given these uncertainties, investors should not place undue reliance on these forward-looking statements.

Investors should read this Quarterly Report on Form 10-Q and the documents that we reference in this report and have filed or will file with the SEC completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

The following discussion should be read in conjunction with our unaudited condensed consolidated financial statements and notes thereto appearing elsewhere in this Quarterly Report on Form 10-Q.

Overview

We pioneered advertising automation technology and are one of the world's largest advertising exchanges. We help websites and applications thrive by giving them tools and expertise to sell ads easily and safely. In addition, the world's leading agencies and brands rely on our technology to execute billions of advertising transactions each month.

We deliver value to buyers and sellers of digital advertising through our proprietary advertising automation solution, which provides critical functionality to both parties. The advertising automation solution consists of applications for sellers, including providers of websites, mobile applications and other digital media properties, and their representatives, to sell their advertising inventory; applications for buyers, including advertisers, agencies, agency trading desks, demand side platforms ("DSPs"), and ad networks, to buy advertising inventory; and a marketplace over which such transactions are executed. This solution incorporates proprietary machine-learning algorithms; sophisticated high-volume, high-speed data processing; detailed analytics capabilities; and a distributed infrastructure. Together, these features form the basis for our automated advertising solution that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the advertising inventory managed on our platform.

One way that we measure buyer and seller activity on our platform is advertising spend, which we define as the buyer spending on advertising transacted on our platform. From advertising spend we retain fees associated with the services that we provide, and those fees make up the revenue we record. Take rate is a measurement we use to track the level of our fees as a percentage of the advertising spend for a given period. We discuss advertising spend and take rate more fully in the "Non-GAAP Financial Measures and Operational Performance Measures" section below.

Industry Trends and Trends in Our Business

Market Opportunities

Our solutions include real-time bidding and Orders. Real-time bidding, or RTB, allows sellers' inventory to be sold to buyers that compete in a real-time auction to purchase sellers' advertising inventory. Our Orders solution allows sellers and buyers to connect directly to execute direct sales of advertising inventory. The programmatic digital advertising market continues to experience growth. In December 2016, International Data Corporation, or IDC, estimated RTB was a \$10.7 billion global market in 2016 that will increase to \$20.9 billion by 2020, and Orders was a \$6.7 billion global market in 2016 that will grow to \$51.8 billion by 2020. The compound annual growth rate for these market opportunities is 43% on a combined basis. Another important trend in the digital advertising industry is the expansion of automated buying and selling of advertising through new and developing channels, including mobile, which has market growth rates exceeding those of the desktop channel and is a critical area of operational focus for us. According to IDC estimates, mobile advertising (excluding search advertising) was a \$30.7 billion global market in 2016 that is expected to increase to \$100.5 billion by 2020, producing a compound annual growth rate of 35%.

In anticipation of the continued industry shift toward mobile advertising, we have significantly advanced our mobile capabilities through a combination of internal product development, strategic client wins, increased mobile activity driven from existing buyer and seller clients, and international expansion. Our mobile advertising spend increased \$3.3 million, or 1%, for the nine months ended September 30, 2017, compared to the nine months ended September 30, 2016. Our mobile business is composed of mobile web, which constituted the majority of our mobile business for the period and is impacted by many of the same factors impacting our desktop business as described below, and mobile applications, which is where we see the greatest potential for growth.

The growth of automated buying and selling of advertising is also expanding into new geographic markets, and in some markets the adoption rate of programmatic digital advertising is greater than in the United States. Our advertising spend in international markets, based upon seller location, represented approximately 34% and 38% of total advertising spend during the nine months ended September 30, 2017 and 2016, respectively.

Shift from Desktop to Mobile

These macro trends present long-term growth opportunities; however, in the near term the industry-wide shift from desktop to mobile advertising has had an adverse impact on our business. In recent years, we have seen an industry-wide slowdown in the growth rate for traditional desktop advertising, and the growth rate for this portion of the market is expected to flatten in future years. According to IDC, programmatic and non-programmatic desktop advertising (excluding search advertising) is expected to grow at a 1% compound annual growth rate over the 2016-2020 period. These trends are having a significant effect on our overall growth rate, because desktop advertising continues to be a significant part of our core business, representing 53% of advertising spend in the third quarter of 2017. Our advertising spend for desktop decreased 32% during the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016. In addition to this overall shift toward mobile, the impact of the slowdown in the growth rate for traditional desktop advertising was compounded for our business beginning in 2016 by the faster-than-expected industry migration to header bidding. Header bidding increased competition for some inventory, and our decision to focus on other growth priorities and consequently not to invest earlier in our own header bidding solution (launched in early 2016), resulted in adverse revenue effects for us due to loss to competitors of some inventory that we would otherwise have been able to sell through our platform. However, header bidding makes available to us premium inventory that previously we were unable to access and our header bidding solution began producing positive results for us in the second half of 2016, which have continued through the third quarter of 2017. Header bidding is going through an additional technical evolution from the client side, which involves the browser running the auction, to a server side solution, in which a server runs the auction and offers improved performance and speed. We believe that our investments in our client side header bidding solution as well as server side header bidding have the potential to improve our competitiveness in all markets in 2018 and beyond. However, we must continue to address certain technical and operational challenges, as described under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016 and subsequent Quarterly Reports on Form 10-Q, in order to realize our header bidding solution's full potential.

Because of these rapid developments in the industry, advertising spend from our traditional desktop business has declined and no longer can be relied upon to drive the growth of our business. Our strategic focus is on growth areas—including mobile, video, and Orders—that are expected to represent a majority of our advertising spend in 2018. However, despite our solid progress in mobile, our traditional desktop business accounted for approximately 58% and 68% of our advertising spend during the nine months ended September 30, 2017 and 2016, respectively, and is expected to continue to represent a significant part of our business in the near term. Therefore, the weight of our desktop business and its decreasing advertising spend trend will continue to have a significant adverse effect on our growth until our advertising spend mix has shifted more fully to growth areas. Another factor impacting our business is that a large share of the growth in digital advertising spending worldwide is being captured by owned and operated sites, such as Facebook and Google.

Take Rate Decline

Ad tech exchange intermediaries like us have used different revenue models in open market RTB transactions, including charging fees only to sellers or arbitraging the purchase and sale of ad impressions. Our approach has been to charge fees to both buyers and sellers in open market transactions conducted on our exchange, consistent with the fact that we provide services to each. Traditionally, for open market waterfall RTB transactions, we have run a modified second price auction in which the clearing price is the greater of the second highest bid in the auction plus one cent or the applicable price floor. Our buyer fees have typically been determined algorithmically and added to the clearing price to determine the price charged to the winning bidder, when there is room to do so while still charging the buyer less than its winning bid. Our take rate is made up of the total fees we charge buyers and sellers. In the third quarter of 2016, our take rate was 24.9%, and the take rate for the third quarter of 2017 was 18.1%, although that figure reflects an average for the entire quarter, during which the take rate declined. The take rate exiting the third quarter was 16.9%. Take rate will decline further, primarily as a result of the elimination of our buyer transaction fees as described below.

The decline in our buyer fees over the last year has resulted from three primary causes. The first cause is our strategic decision to make voluntary reductions in the fees we charge buyers in open market waterfall RTB transactions. We made this decision earlier in 2017 in an effort to be more competitive in attracting demand and capturing supply in light of increasing market trends toward transparency, commoditization of intermediary services, and disintermediation.

The second cause is a shift in the mix of transactions on our exchange from approximately three quarters open market RTB conducted through the traditional ad server waterfall at the end of December 2016 to approximately half open market waterfall RTB as of September 30, 2017. In traditional open market waterfall RTB transactions, available impressions are passed to different demand sources in a sequence determined by the seller's ad server, and when an impression is passed to a particular demand source, that demand source is generally able to auction the impression with little or no competition. As the percentage of open market waterfall RTB transactions has declined, the percentage of header bidding transactions has increased. Header bidding increases competition for ad inventory by exposing impressions simultaneously to multiple sources of demand in a competitive auction that, if successful, replaces the ad server waterfall. Each demand source in a header bidding auction conducts its own auction for the impression and then passes its winning bid to a "downstream" meta-auction in which the highest bid wins. To be more competitive and to provide their demand partners a better chance of winning the impressions on which they bid, exchange intermediaries in header bidding are motivated to submit higher priced bids into the downstream auction. This competition pushes auction clearing prices much closer to the winning first-price bid than open market waterfall RTB transactions, and can motivate exchange intermediaries to reduce their fees to help fund higher, more competitive bids.

Header bidding has become a critical part of our market, and during the three months ended September 30, 2017, we began testing new auction dynamics to improve our success in winning header bidding transactions. During these tests, we introduced a modified first price auction, which is a new auction dynamic for our exchange that is designed to increase the probability of our buyer winning in the downstream auction by clearing our auction (thereby selecting the bid to advance to the downstream auction) at the highest bid, which may be adjusted downward to balance the likelihood of winning the impression against its cost. For these modified first price auctions, we passed higher bids into the downstream auctions in order to increase the chances of our buyers winning the impressions on which they were bidding. To support this strategic decision, we reduced the buyer fees we charge in those transactions. Following the results of these tests and based on market feedback, in October we began offering a modified first price auction dynamic in our header bidding solution without buyer fees.

The third cause is direct pressure from buyers and sellers, which has recently accelerated dramatically. As the ad tech industry has matured and evolved, competition has increased and pricing has become more transparent. The primary buyers in our open market RTB transactions are DSPs buying on behalf of agency and brand clients that are demanding reduced costs and fee transparency throughout the value chain. DSPs and their clients are consequently demanding that we disclose and limit our buyer fees or eliminate them altogether, and DSPs and their clients may reduce or eliminate spending on exchanges that charge buyer fees. In addition, some sellers believe that buyer fees—even additive fees like ours—ultimately reduce seller revenue, and therefore are seeking to cap or eliminate buyer fees on sale of their inventory. These dynamics have contributed to the decline in our take rate by forcing buyer fees even lower than what we had targeted through our voluntary strategic buyer fee reductions. In response to these market trends, and consistent with our strategy to be a high volume, low cost and transparent exchange, we stopped charging additive buyer fees altogether effective November 1, 2017. We still charge some buyers an access fee to connect to our system when their spending is too small to support the maintenance of their accounts, but these access fees in the aggregate are insignificant. As such, our future revenue will consist almost entirely of a unitary marketplace fee. Most of our marketplace fees are negotiated with sellers as a percentage of the auction clearing price for sale of their inventory. In some cases, we reduce the buyer's bid amount by the amount of our seller fee and pass the remainder as the bid to the seller. If the bid wins we retain the amount of the bid reduction as our marketplace fee. We do this at the discretion of sellers that allocate advertising inventory through a decisioning process that follows our auction and incorporates other demand sources as well as our bids, and that prefer or require that we submit our bids to them net of our fees, so that our bid matches the amount we will owe them if we win. This is referred to as net bidding. Net bidding amounts can vary across transactions, but the aggregate monthly marketplace fees we earn in these transactions are generally consistent with the marketplace fees we earn in other transactions.

Taking into account the elimination of our buyer transaction fees, and assuming no increases in seller fees, we expect our overall take rate will drop by approximately 400 to 500 basis points for the fourth quarter of 2017 compared to where we exited the third quarter (reflecting the fact that we charged buyer fees on open market waterfall RTB transactions and some header bidding transactions in October), and by approximately an additional 100 to 150 basis points for the first quarter of 2018 to reflect a full quarter impact. Because we have previously split our fees on open market transactions between buyers and sellers, we negotiated seller fees below levels that we would have charged if our revenue model had been to charge only sellers and we believe that, net of elimination of our buyer transaction fees, transactions on our platform will carry low fees relative to the market, and that this will help attract additional inventory and demand to our platform. Unless and until we are able to compensate for loss of buyer fees by increasing advertising spend on our platform, through higher transaction volumes or higher transaction values or both, or by increasing seller fees, our revenue will continue to decline and we will not be able to grow our business.

Increases in private marketplace and header bidding transactions as a percentage of our advertising spend could yield higher revenue despite lower take rates due to increases in advertising spend resulting from higher CPMs typically associated with private marketplace transactions, and from modified first-price auctions in header bidding transactions. However, in an increasingly competitive market in which buyers and sellers have many choices, it is not clear whether pricing reductions will result in increases in spending on our platform, or whether any spending increases will compensate fully for the reduction in pricing. Further, because the rate at which we win header bidding auctions is much lower than the rate at which we win waterfall transactions, as our business continues to shift away from waterfall transactions to header bidding, we need to participate in far more header bidding auctions to compensate for the decline in the number of waterfall transactions. Driving revenue growth in this situation is difficult to accomplish in a competitive market and requires accessing significantly greater inventory levels from our sellers and in turn processing more auctions. This growth in business volume requires adequate processing capacity, and the investment required to build and maintain that capacity reinforces the need for technology improvements and the importance of continued focus on creating increased operating efficiencies throughout our business.

In response to the kinds of challenges described above, we have taken steps to reduce costs and reallocate resources to growth areas. In the third quarter of 2016, we terminated our Static bidding offering, which accounted for approximately 3% of total advertising spend in 2016 and was continuing to decline due to shifts in market spending from Static bidding to RTB. In the fourth quarter of 2016, we restructured our workforce, reducing our headcount by approximately 125 persons. In the first quarter of 2017, we ceased offering our intent marketing solution, closed our Toronto office, and implemented a management restructuring involving the departure of senior leaders. These measures are intended to reduce our costs, enable us to reduce the number of unprofitable ad requests on our exchange, process transactions more efficiently, and facilitate investment in market share growth, technology and R&D for growth areas including mobile, video, Orders, and header bidding.

However, the actions we took in 2016 and early 2017 to continue to grow our supply of inventory and reduce costs are not enough to offset the decline in our take rate. Buyer fees represented approximately half of our revenue for the first nine months of 2017, and we do not expect to be able to grow quickly enough in the near term to make up for the elimination of these fees. This will result in consumption of cash to support operations, reinforcing the need to find ways to operate much more efficiently, including by closely managing our IT infrastructure spending.

Components of Our Results of Operations

We report our financial results as one operating segment. Our consolidated operating results, together with non-GAAP financial measures and the operational performance measures, are regularly reviewed by our chief operating decision maker, principally to make decisions about how we allocate our resources and to measure our consolidated operating performance.

Revenue

We generate revenue from buyers and sellers who use our solution for the purchase and sale of advertising inventory. Our solution enables buyers and sellers to purchase and sell advertising inventory by matching buyers and sellers and establishing rules and parameters for auctions of advertising inventory. Buyers use our solution to reach their intended audiences by buying advertising inventory that we make available from sellers through our platform. Sellers use our solution to monetize their inventory. We recognize revenue upon the fulfillment of our contractual obligations in connection with a completed transaction, subject to satisfying all other revenue recognition criteria.

Our revenue recognition policies are discussed in more detail below and in the notes to our condensed consolidated financial statements presented in Part I, Item 1. "Notes to Condensed Consolidated Financial Statements."

Expenses

We classify our expenses into the following six categories:

Cost of Revenue. Our cost of revenue consists primarily of data center costs, bandwidth costs, depreciation and maintenance expense of hardware supporting our revenue-producing platform, amortization of software costs for the development of our revenue-producing platform, amortization expense associated with acquired developed technologies, personnel costs, facilities-related costs, and for transactions we have previously reported on a gross basis, the amounts we paid sellers. Personnel costs included in cost of revenue include salaries, bonuses, stock-based compensation, and employee benefit costs, and are primarily attributable to personnel in our network operations group who support our platform. We capitalize costs associated with software that is developed or obtained for internal use and amortize the costs associated with our revenue-producing platform in cost of revenue over their estimated useful lives. We amortize acquired developed technologies over their estimated useful lives.

Sales and Marketing. Our sales and marketing expenses consist primarily of personnel costs, including stock-based compensation and the sales bonuses paid to our sales organization, as well as marketing expenses such as brand marketing, travel expenses, trade shows and marketing materials, professional services, and amortization expense associated with client relationships and backlog from our business acquisitions, and to a lesser extent, facilities-related costs and depreciation and amortization. Our sales organization focuses on increasing the adoption of our solution by existing and new buyers and sellers. We amortize acquired intangibles associated with client relationships and backlog from our business acquisitions over their estimated useful lives.

Technology and Development. Our technology and development expenses consist primarily of personnel costs, including stock-based compensation and bonuses, as well as professional services associated with the ongoing development and maintenance of our solution, and to a lesser extent, facilities-related costs and depreciation and amortization, including amortization expense associated with acquired intangible assets from our business acquisitions that are related to technology and development functions. These expenses include costs incurred in the development, implementation, and maintenance of internal use software, including platform and related infrastructure. Technology and development costs are expensed as incurred, except to the extent that such costs are associated with internal use software development that qualifies for capitalization, which are then recorded as internal use software development costs, net, on our condensed consolidated balance sheet. We amortize internal use software development costs that relate to our revenue-producing activities on our platform to cost of revenue and amortize other internal use software development costs to technology and development costs or general and administrative expenses, depending on the nature of the related project. We amortize acquired intangibles associated with technology and development functions from our business acquisitions over their estimated useful lives.

General and Administrative. Our general and administrative expenses consist primarily of personnel costs, including stock-based compensation and bonuses, associated with our executive, finance, legal, human resources, compliance, and other administrative personnel, as well as accounting and legal professional services fees, facilities-related costs and depreciation, and other corporate-related expenses. General and administrative expenses also include amortization of internal use software development costs and acquired intangible assets from our business acquisitions over their estimated useful lives that relate to general and administrative functions and changes in fair value associated with the liability-classified contingent consideration related to acquisitions.

Restructuring and Other Exit Costs. Our restructuring and other exit costs are cash and non-cash charges consisting primarily of employee termination costs and facility closure costs.

Impairment of Goodwill. Our impairment charges are non-cash charges related to goodwill. Goodwill is not amortized, but is subject to impairment testing conducted annually during the fourth quarter or more frequently if events or changes in circumstances indicate that goodwill may be impaired. For purposes of goodwill impairment testing, we operate as a single operating segment and have identified a single reporting unit. Events or changes in circumstances which could trigger an impairment review include a decline in market capitalization below net assets, a significant adverse change in legal factors or in the business climate, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, significant changes in how we use the acquired assets or our overall business strategy, significant negative industry or economic trends, or significant underperformance relative to expected historical or projected future results of operations. We assess impairment by comparing the estimated fair value of the Company with its respective carrying amount, including goodwill. If the estimated fair value of the Company exceeds its carrying amount, including goodwill, goodwill is considered not to be impaired and no additional steps are necessary. If the fair value is less than the carrying amount, including goodwill, then an impairment adjustment must be recorded. Refer to Note 5 "Goodwill and Intangible Assets" of the accompanying condensed consolidated financial statements for a description of the methods used to compute the charge for the impairment of goodwill of \$90.3 million recorded in the third quarter of 2017.

Other (Income), Expense

Interest Income, Net. Interest expense is mainly related to our credit facility. Interest income consists of interest earned on our cash equivalents and marketable securities and was insignificant for the nine months ended September 30, 2017 and 2016.

Other Income. Other income consists primarily of rental income from commercial office space we hold under lease and have sublet to other tenants.

Foreign Currency Exchange (Gain) Loss, Net. Foreign currency exchange (gain) loss, net consists primarily of gains and losses on foreign currency transactions. We have foreign currency exposure related to our accounts receivable and accounts payable that are denominated in currencies other than the U.S. Dollar, principally the British Pound and the Euro.

Benefit for Income Taxes

Benefit for income taxes consists primarily of federal, state, and foreign income taxes. Due to uncertainty as to the realization of benefits from the predominant portion of our domestic and international net deferred tax assets, including net operating loss carryforwards and research and development tax credits, we have a full valuation allowance reserved against such net deferred tax assets. We intend to continue to maintain a full valuation allowance on our deferred tax assets until there is sufficient evidence to support the reversal of all or some portion of these allowances. Release of the valuation allowance would result in the recognition of certain net deferred tax assets and a decrease to income tax expense or recognition of a benefit for the period the release is recorded. However, the exact timing and amount of the valuation allowance release are subject to change on the basis of the level of profitability that we are able to achieve.

Results of Operations

The following table sets forth our condensed consolidated results of operations:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Revenue	\$ 35,211	\$ 65,811	\$ 124,148	\$ 205,554
Expenses ⁽¹⁾⁽²⁾ :				
Cost of revenue	12,985	17,798	41,371	52,121
Sales and marketing	12,503	21,635	39,660	64,879
Technology and development	11,580	12,513	36,377	38,250
General and administrative	13,644	16,238	43,079	53,233
Restructuring and other exit costs	—	—	5,959	—
Impairment of goodwill	90,251	—	90,251	—
Total expenses	140,963	68,184	256,697	208,483
Loss from operations	(105,752)	(2,373)	(132,549)	(2,929)
Other income, net	(150)	(346)	(73)	(1,085)
Loss before income taxes	(105,602)	(2,027)	(132,476)	(1,844)
Benefit for income taxes	(2,031)	(5,557)	(1,510)	(4,981)
Net income (loss)	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137

(1) Stock-based compensation expense included in our expenses was as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Cost of revenue	\$ 115	\$ 91	\$ 295	\$ 261
Sales and marketing	1,115	2,054	3,524	6,711
Technology and development	1,122	1,287	3,178	4,461
General and administrative	2,294	3,099	7,631	10,615
Restructuring and other exit costs	—	—	1,560	—
Total stock-based compensation expense	\$ 4,646	\$ 6,531	\$ 16,188	\$ 22,048

(2) Depreciation and amortization expense included in our expenses was as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Cost of revenue	\$ 7,221	\$ 7,010	\$ 23,645	\$ 19,678
Sales and marketing	135	2,736	888	6,298
Technology and development	615	692	1,612	1,896
General and administrative	207	516	1,009	1,490
Total depreciation and amortization expense	\$ 8,178	\$ 10,954	\$ 27,154	\$ 29,362

The following table sets forth our condensed consolidated results of operations for the specified periods as a percentage of our revenue for those periods presented:

	Three Months Ended *		Nine Months Ended *	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Revenue	100 %	100 %	100 %	100 %
Cost of revenue	37	27	33	25
Sales and marketing	36	33	32	32
Technology and development	33	19	29	19
General and administrative	39	25	35	26
Restructuring and other exit costs	—	—	5	—
Impairment of goodwill	256	—	73	—
Total expenses	400	104	207	101
Loss from operations	(300)	(4)	(107)	(1)
Other income, net	—	(1)	—	(1)
Loss before income taxes	(300)	(3)	(107)	(1)
Benefit for income taxes	(6)	(8)	(1)	(2)
Net income (loss)	(294)%	5 %	(105)%	2 %

* Certain figures may not sum due to rounding.

Comparison of the Three and Nine Months Ended September 30, 2017 and 2016

Revenue

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Revenue	\$ 35,211	\$ 65,811	\$ 124,148	\$ 205,554

Revenue decreased \$30.6 million, or 47%, for the three months ended September 30, 2017 compared to the three months ended September 30, 2016. The decrease is due to a decrease in advertising spend on our platform due to market and competitive pressures, deceleration in traditional desktop display spending, and header bidding dynamics as described above. In addition, we voluntarily implemented certain strategic reductions in our pricing in response to our perception of market conditions and in an effort to increase our competitiveness. Year-over-year revenue was also adversely affected by shifts in our business mix in favor of buyers and sellers and inventory types with lower fee rates. Finally, the decline of our intent marketing solution and the ultimate decision to cease offering our intent marketing solution in the quarter ended March 31, 2017 contributed to the total revenue decrease when compared to the prior year.

Revenue decreased \$81.4 million, or 40%, for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016 for the same reasons described above.

Revenue is impacted by shifts in the mix of advertising spend by transaction type and channel, changes in the fees we charge buyers and sellers for our services (which drive take rate), and other factors such as changes in the market, our execution of the business, and competition. Industry dynamics are challenging due to market and competitive pressures and make it difficult to predict the near-term effect of our growth initiatives. Consequently, while we anticipate long-term benefits from these initiatives, in 2017 we experienced a decrease in revenue compared to 2016 resulting from the cessation of our intent marketing solution, a decreasing overall take rate, increased competition for inventory partially due to continued industry-wide growth in header bidding, and increased competition for demand, including from large providers of owned and operated inventory. Most of the strategic pricing reductions we implemented in the first half of the year did not take effect until part way through the second quarter, so they will have a more significant effect on the second half of the year unless counterbalanced by positive effects from these reductions or other growth initiatives. Our take rate was 18.1% for the quarter ended September 30, 2017 compared to 24.9% the year prior quarter, and will continue to decline due to the elimination of our buyer transaction fees on November 1, 2017. The take rate was 16.9% as we exited the third quarter, and will drop by approximately 400 to 500 basis points for the fourth quarter of 2017 compared to where we exited the third quarter (reflecting the fact that we charged buyer fees on open market waterfall RTB).

transactions and some header bidding transactions in October), and approximately an additional 100 to 150 basis points for the first quarter of 2018 to reflect a full quarter impact. We also expect an ongoing increase in Orders as a percentage of the transactions on our platform to contribute to lower take rates because Orders carry lower fees than RTB transactions. Unless and until we are able to compensate for loss of buyer fees by increasing advertising spend on our platform, through higher transaction volumes or higher transaction values or both, or by increasing seller fees, our revenue will continue to decline, we will not be able to grow our business, and our cash resources may be depleted. Finally, while we have previously experienced fourth quarter seasonal advertising spend growth due to increased advertising demand during the holiday season, our fee reductions may more than offset spending increases, eliminating fourth quarter seasonal revenue uplift in 2017.

Cost of Revenue

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands, except percentages)			
Cost of revenue	\$ 12,985	\$ 17,798	\$ 41,371	\$ 52,121
Percent of revenue	37%	27%	33%	25%

Cost of revenue decreased by \$4.8 million, or 27%, for the three months ended September 30, 2017 compared to the three months ended September 30, 2016, primarily due to a decrease of \$5.0 million in the amounts we paid sellers due to lower advertising spend on our platform, and to a lesser extent, the decrease reflects the impact of the discontinuation of our intent marketing solution during the quarter ended March 31, 2017. This decrease was partially offset by increases of \$0.2 million in depreciation and amortization expense as a result of increases in depreciation of computer equipment and network hardware, and amortization of capitalized internal use software, as we continued to enhance the functionality of our existing products and build new solutions to expand our offerings. Cost of revenue as a percent of revenue increased from 27% to 37% as a result of pricing declines in the three months ended September 30, 2017 compared to the three months ended September 30, 2016.

Cost of revenue decreased by \$10.8 million, or 21%, for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016. The decrease is primarily driven by a decrease of \$15.1 million in amounts paid to sellers due to the same reasons described above, primarily the reduction in advertising spend on our platform, offset by increases of \$4.0 million in depreciation and amortization as a result of our continued efforts in enhancing functionality of our existing product and building new solutions to expand our offerings.

We expect cost of revenue to be higher in absolute dollars in the remaining quarter of 2017 compared to the prior two quarters of 2017. We expect to have increased spending on data centers and investments in developed technology to support our strategic growth initiatives, which will eventually outweigh the elimination of amounts paid to sellers noted above. In addition, we expect to incur incremental expenses related to the absorption of nToggle operations. Cost of revenue may fluctuate from quarter to quarter and period to period, on an absolute dollar basis and as a percentage of revenue, depending on revenue levels and the volume of transactions we process supporting those revenues, and the timing and amounts of investments.

Sales and Marketing

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands, except percentages)			
Sales and marketing	\$ 12,503	\$ 21,635	\$ 39,660	\$ 64,879
Percent of revenue	36%	33%	32%	32%

Sales and marketing expense decreased \$9.1 million or 42% for the three months ended September 30, 2017 compared to the three months ended September 30, 2016, primarily due to a decrease of \$5.0 million in sales and marketing personnel costs as a result of our operating cost control initiatives. Sales and marketing depreciation and amortization costs decreased by \$2.6 million primarily due to lower amortization of acquired client relationships.

Sales and marketing expense decreased by \$25.2 million, or 39%, for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016, primarily for the same reasons described above.

We expect sales and marketing expenses to be higher in absolute dollars in the remaining quarter of 2017 compared to the prior two quarters of 2017, partially due to the absorption of nToggle operations. Sales and marketing expense may fluctuate quarter to quarter and period to period, on an absolute dollar basis and as a percentage of revenue, based on revenue levels, the timing of our investments and seasonality in our industry and business.

Technology and Development

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands, except percentages)			
Technology and development	\$ 11,580	\$ 12,513	\$ 36,377	\$ 38,250
Percent of revenue	33%	19%	29%	19%

Technology and development expense decreased by \$0.9 million, or 7%, for the three months ended September 30, 2017 compared to the three months ended September 30, 2016, primarily due to a decrease in headcount and related personnel costs of \$0.9 million as a result of our operating cost control initiatives.

Technology and development expense decreased by \$1.9 million, or 5%, for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016, primarily due to a decrease of \$2.5 million in headcount and related personnel costs for the same reasons as described above, partially offset by an increase of \$1.6 million in software licenses due to annual increases in our existing licenses to maintain and support our technology and development efforts.

We expect technology and development expense to be flat in absolute dollars in the remaining quarter of 2017 compared to the prior two quarters of 2017 as we continue to invest in our engineering and technology teams to support our technology and development efforts, including the absorption of nToggle operations, and the auction processing costs and infrastructure required to process greater volumes of data and transactions we will need to grow revenue. We are exploring ways to improve our efficiencies in technology development and infrastructure spending. The timing and amount of our capitalized development and enhancement projects may affect the amount of development costs expensed in any given period. As a percentage of revenue, technology and development expense may fluctuate from quarter to quarter and period to period based on revenue levels, the timing and amounts of these investments, the timing and the rate of the amortization of capitalized projects and the timing and amounts of future capitalized internal use software development costs.

General and Administrative

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands, except percentages)			
General and administrative	\$ 13,644	\$ 16,238	\$ 43,079	\$ 53,233
Percent of revenue	39%	25%	35%	26%

General and administrative expense decreased by \$2.6 million, or 16%, for the three months ended September 30, 2017 compared to the three months ended September 30, 2016, primarily due to a decrease in headcount and related personnel costs of \$2.0 million as a result of our cost control initiatives.

General and administrative expense decreased by \$10.2 million, or 19%, for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016, primarily due to a decrease of \$7.6 million in headcount and related personnel costs for the same reasons as described above and a decrease in professional services costs of \$1.4 million primarily due to decreased legal and consulting costs.

We expect quarterly general and administrative expense to be higher in absolute dollars in the remaining quarter of 2017 compared to the prior two quarters of 2017. General and administrative expenses may fluctuate from quarter to quarter and period to period based on the timing and amounts of our investments and related expenditures in our general and administrative functions as they vary in scope and scale over periods which may not be directly proportional to changes in revenue.

Restructuring and Other Exit Costs

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands, except percentages)			
Restructuring and other exit costs	\$ —	\$ —	\$ 5,959	\$ —
Percent of revenue	—%	—%	5%	—%

Restructuring and other exit costs increased by \$6.0 million for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016, as a result of the management restructuring and the costs associated with the shut-down of our intent marketing services. Restructuring and other exit costs were de minimis for the three months ended September 30, 2017 and three months ended September 30, 2016, because there were no restructuring activities in those periods.

The annualized cash basis employee-related costs for the departed intent marketing, senior leadership and related employees was approximately \$9.0 million, and additional savings from non-headcount and non-media intent marketing costs are estimated at an annualized \$4.0 million.

Impairment of Goodwill

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands, except percentages)			
Impairment of goodwill	\$ 90,251	\$ —	\$ 90,251	\$ —
Percent of revenue	256%	—%	73%	—%

During the quarter ended September 30, 2017, due to declines in our stock price and market capitalization, and recent developments that negatively impacted the near-term outlook for our business, we determined that indicators of potential impairment existed to require an interim quantitative goodwill assessment. We concluded that the fair value of the Company was less than the carrying value of net assets and accordingly recorded an impairment totaling \$90.3 million which is included in the condensed consolidated statement of operations.

Other (Income) Expense, Net

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Interest income, net	\$ (269)	\$ (134)	\$ (664)	\$ (359)
Other income	(123)	(191)	(502)	(388)
Foreign exchange (gain) loss, net	242	(21)	1,093	(338)
Total other income, net	\$ (150)	\$ (346)	\$ (73)	\$ (1,085)

Other income primarily consists of revenue generated by our sub-leasing activity.

Foreign exchange (gain) loss, net is impacted by movements in exchange rates, primarily the British Pound and the Euro relative to the U.S. Dollar, and the amount of foreign currency-denominated receivables and payables, which are impacted by our billings to buyers and payments to sellers. The foreign currency loss, net during the three and nine months ended September 30, 2017 were primarily attributable to the weakening of the U.S. Dollar in relation to the British Pound and the Euro for foreign currency denominated transactions. The foreign currency gain, net during the three and nine months ended September 30, 2016 was primarily attributable to the strengthening of the U.S. Dollar in relation to the British Pound and the Euro for foreign currency denominated transactions.

Benefit for Income Taxes

We recorded an income tax benefit of \$2.0 million and \$1.5 million for the three and nine months ended September 30, 2017 and an income tax benefit of \$5.6 million and \$5.0 million for the three and nine months ended September 30, 2016. The tax benefit for the three months ended September 30, 2017 is the result of the release of existing valuation allowance due to net deferred tax liabilities recognized on the nToggle acquisition.

Non-GAAP Financial Measures and Operational Performance Measures

In addition to our GAAP results, we review certain non-GAAP financial and operational measures to help us evaluate our business, measure our performance, identify trends affecting our business, establish budgets, measure the effectiveness of investments in our technology and development and sales and marketing, and assess our operational efficiencies. These non-GAAP measures include advertising spend, non-GAAP net revenue, Adjusted EBITDA, and take rate, which are discussed immediately following the table below. Revenue and other GAAP measures are discussed under the headings "Components of Our Results of Operations" and "Results of Operations".

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
(in thousands)				
Financial Measures and non-GAAP Financial Measures:				
Revenue	\$ 35,211	\$ 65,811	\$ 124,148	\$ 205,554
Advertising spend	\$ 195,019	\$ 242,802	\$ 590,950	\$ 748,712
Non-GAAP net revenue	\$ 35,211	\$ 60,563	\$ 123,515	\$ 189,231
Net income (loss)	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137
Adjusted EBITDA	\$ (2,286)	\$ 15,306	\$ 1,814	\$ 49,203
Operational Measure:				
Take Rate %	18.1%	24.9%	20.9%	25.3%

Advertising Spend

We define advertising spend as the buyer spending on advertising transacted on our platform. Advertising spend does not represent revenue reported on a GAAP basis. Tracking our advertising spend facilitates comparison of our results to the results of companies in our industry that report GAAP revenue on a gross basis. We also use advertising spend for internal management purposes to assess market share of total advertising spending.

Our advertising spend may be influenced by demand for our services, the volume and characteristics of paid impressions, average CPM, the nature and amount of fees we charge, and other factors such as changes in the market, our execution of the business, and competition.

Advertising spend may fluctuate due to seasonality and increases or decreases in paid impressions, CPM, and fees. In the past, we have experienced higher advertising spend during the fourth quarter of a given year resulting from higher advertiser budgets and more bidding activity on our platform, which may drive higher volumes of paid impressions or average CPM. However, lower buyer fees reduce advertising spend and expected seasonal increases in advertising spend in the fourth quarter of 2017 may not be enough to compensate for decreased take rates resulting from elimination of our buyer transaction fees on November 1, 2017, in which case we would not experience a holiday season fourth quarter revenue uplift this year. Advertising spend during the nine months ended September 30, 2017 has decreased \$158 million compared to the nine months ended September 30, 2016, primarily due to market and competitive pressures, deceleration in traditional desktop display spending, header bidding dynamics and decreases in our fees. The elimination of our buyer transaction fees on November 1, 2017 will result in further year-over-year decreases in advertising spend in the fourth quarter of 2017 and into 2018 absent compensating increases in transaction activity on our platform.

The following table presents the reconciliation of revenue to advertising spend:

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
(in thousands)				
Revenue	\$ 35,211	\$ 65,811	\$ 124,148	\$ 205,554
Plus amounts paid to sellers ⁽¹⁾	159,808	176,991	466,802	543,158
Advertising spend	\$ 195,019	\$ 242,802	\$ 590,950	\$ 748,712

(1) Amounts paid to sellers for the portion of our revenue reported on a net basis for GAAP purposes.

Our solution enables buyers and sellers to transact through desktop and mobile channels. The following table presents revenue and advertising spend by channel in dollar terms and as a percentage of total revenue or advertising spend for the three and nine months ended September 30, 2017 and 2016.

	Revenue				Advertising Spend			
	Three Months Ended							
	September 30, 2017		September 30, 2016		September 30, 2017		September 30, 2016	
(in thousands, except percentages)								
Channel:								
Desktop	\$ 16,881	48%	\$ 42,684	65%	\$ 103,325	53%	\$ 159,460	66%
Mobile	18,330	52	23,127	35	91,694	47	83,342	34
Total	<u>\$ 35,211</u>	<u>100%</u>	<u>\$ 65,811</u>	<u>100%</u>	<u>\$ 195,019</u>	<u>100%</u>	<u>\$ 242,802</u>	<u>100%</u>

	Revenue				Advertising Spend			
	Nine Months Ended							
	September 30, 2017		September 30, 2016		September 30, 2017		September 30, 2016	
(in thousands, except percentages)								
Channel:								
Desktop	\$ 68,956	56%	\$ 135,672	66%	\$ 345,481	58%	\$ 506,579	68%
Mobile	55,192	44	69,882	34	245,469	42	242,133	32
Total	<u>\$ 124,148</u>	<u>100%</u>	<u>\$ 205,554</u>	<u>100%</u>	<u>\$ 590,950</u>	<u>100%</u>	<u>\$ 748,712</u>	<u>100%</u>

Non-GAAP Net Revenue

We define non-GAAP net revenue as GAAP revenue less amounts paid to sellers that are included within cost of revenue for the portion of our revenue reported on a gross basis. Non-GAAP net revenue would represent our revenue if we were to record all of our revenue on a net basis. Non-GAAP net revenue does not represent revenue reported on a GAAP basis. Non-GAAP net revenue is one useful measure in assessing the performance of our business in periods for which our revenue includes revenue reported on a gross basis, because it shows the operating results of our business on a consistent basis without the effect of differing revenue reporting (gross vs. net) that we apply under GAAP across different types of transactions, and facilitates comparison of our results to the results of companies that report all of their revenue on a net basis. A potential limitation of non-GAAP net revenue is that other companies may define non-GAAP net revenue differently, which may make comparisons difficult.

Non-GAAP net revenue is influenced by demand for our services, the volume and characteristics of advertising spend, and our take rate. The revenue we have reported on a gross basis was associated with our intent marketing solution. Because we exited that business in the first quarter of 2017, we do not expect any difference between revenue and non-GAAP net revenue unless and until changes in our business or applicable accounting standards require gross reporting for at least some of our revenue. The decline in Non-GAAP net revenue and our expectations for future Non-GAAP net revenue have been driven by the same factors that drove the changes in our GAAP metrics noted above.

The following table presents a reconciliation of revenue to non-GAAP net revenue for the three and nine months ended September 30, 2017 and 2016.

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
(in thousands)				
Revenue	\$ 35,211	\$ 65,811	\$ 124,148	\$ 205,554
Less amounts paid to sellers ⁽¹⁾	—	5,248	633	16,323
Non-GAAP net revenue	<u>\$ 35,211</u>	<u>\$ 60,563</u>	<u>\$ 123,515</u>	<u>\$ 189,231</u>

(1) Amounts paid to sellers for the portion of our revenue reported on a gross basis for GAAP purposes. Because we ceased offering intent marketing solutions in the first quarter of 2017, we do not expect to report revenue on a gross basis, unless required going forward based on changes in our business or applicable accounting standards.

Adjusted EBITDA

We define Adjusted EBITDA as net income (loss) adjusted to exclude stock-based compensation expense, depreciation and amortization, amortization of acquired intangible assets, impairment charges, interest income or expense, and other cash and non-cash based income or expenses that we do not consider indicative of our core operating performance, including, but not limited to foreign exchange gains and losses, acquisition and related items, and provision (benefit) for income taxes. We believe Adjusted EBITDA is useful to investors in evaluating our performance for the following reasons:

- Adjusted EBITDA is widely used by investors and securities analysts to measure a company's performance without regard to items such as those we exclude in calculating this measure, which can vary substantially from company to company depending upon their financing, capital structures, and the method by which assets were acquired.
- Our management uses Adjusted EBITDA in conjunction with GAAP financial measures for planning purposes, including the preparation of our annual operating budget, as a measure of performance and the effectiveness of our business strategies, and in communications with our board of directors concerning our performance. Adjusted EBITDA may also be used as a metric for determining payment of cash incentive compensation.
- Adjusted EBITDA provides a measure of consistency and comparability with our past performance that many investors find useful, facilitates period-to-period comparisons of operations, and also facilitates comparisons with other peer companies, many of which use similar non-GAAP financial measures to supplement their GAAP results.

Although Adjusted EBITDA is frequently used by investors and securities analysts in their evaluations of companies, Adjusted EBITDA has limitations as an analytical tool, and should not be considered in isolation or as a substitute for analysis of our results of operations as reported under GAAP. These limitations include:

- Stock-based compensation is a non-cash charge and will remain an element of our long-term incentive compensation package, although we exclude it as an expense when evaluating our ongoing operating performance for a particular period.
- Depreciation and amortization are non-cash charges, and the assets being depreciated or amortized will often have to be replaced in the future, but Adjusted EBITDA does not reflect any cash requirements for these replacements.
- Impairment charges are non-cash charges related to goodwill, intangible assets and/or long-lived assets.
- Adjusted EBITDA does not reflect non-cash charges related to acquisition and related items, such as amortization of acquired intangible assets and changes in the fair value of contingent consideration.
- Adjusted EBITDA does not reflect cash and non-cash charges and changes in, or cash requirements for, acquisition and related items, such as certain transaction expenses and expenses associated with earn-out amounts.
- Adjusted EBITDA does not reflect changes in our working capital needs, capital expenditures, or contractual commitments.
- Adjusted EBITDA does not reflect cash requirements for income taxes and the cash impact of other income or expense.
- Other companies may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Our Adjusted EBITDA is influenced by fluctuations in our revenue and the timing and amounts of our investments in our operations. Adjusted EBITDA should not be considered as an alternative to net income (loss), operating loss, or any other measure of financial performance calculated and presented in accordance with GAAP.

The following table presents a reconciliation of net income (loss), the most comparable GAAP measure, to Adjusted EBITDA for the three and nine months ended September 30, 2017 and 2016.

	Three Months Ended		Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(in thousands)			
Net income (loss)	\$ (103,571)	\$ 3,530	\$ (130,966)	\$ 3,137
Add back (deduct):				
Depreciation and amortization expense, excluding amortization of acquired intangible assets	7,021	5,259	23,633	15,018
Amortization of acquired intangibles	1,157	5,695	3,521	14,344
Stock-based compensation expense	4,646	6,531	16,188	22,048
Impairment of goodwill	90,251	—	90,251	—
Acquisition and related items	268	3	268	334
Interest income, net	(269)	(134)	(664)	(359)
Foreign currency (gain) loss, net	242	(21)	1,093	(338)
Benefit for income taxes	(2,031)	(5,557)	(1,510)	(4,981)
Adjusted EBITDA	\$ (2,286)	\$ 15,306	\$ 1,814	\$ 49,203

The decline in adjusted EBITDA for the three and nine months ended September 30, 2017 and our expectations for future adjusted EBITDA have been driven by the same factors that drove the changes in our GAAP metrics noted above.

Take Rate

Take rate is an operational performance measure calculated as revenue (or for periods in which we have revenue reported on a gross basis, as non-GAAP net revenue) divided by advertising spend. We review take rate for internal management purposes to assess the development of our marketplace with buyers and sellers.

Our take rate (and our fees, which drive take rate) can be affected by a variety of factors, including the terms of our arrangements with buyers and sellers active on our platform in a particular period; the scale of a buyer's or seller's activity on our platform; mix of inventory or transaction types; the implementation of new products; platforms and solution features; auction dynamics; negotiations with clients; header bidding; competitive factors and our strategic pricing decisions, including strategic fee reductions we implemented during the first half of 2017 and elimination of our buyer transaction fees as of November 1, 2017; additional fee reductions or alternative pricing models we may plan to implement in the future; and the overall development of the digital advertising ecosystem.

Our take rate was 21.0% for the quarter ended June 30, 2017 and 18.1% for the quarter ended September 30, 2017. Our take rate was 16.9% as we exited the third quarter. Taking into account the elimination of our buyer transaction fees on November 1, 2017, and assuming no increases in seller fees, our overall take rate will drop by approximately 400 to 500 basis points for the fourth quarter of 2017 compared to where we exited the third quarter of 2017 (reflecting the fact that we charged buyer fees on open market waterfall RTB transactions and some header bidding transactions in October), and approximately an additional 100 to 150 basis points for the first quarter of 2018 to reflect a full quarter impact.

Liquidity and Capital Resources

Our principal sources of liquidity are our cash and cash equivalents, marketable securities, the cash flow that we may generate from our operations, and our credit facility with Silicon Valley Bank, or SVB. At September 30, 2017, we had cash and cash equivalents of \$99.5 million, of which \$23.0 million was held in foreign currency cash accounts, and we had additional marketable securities of \$39.5 million. Those balances reflect the use of \$38.6 million of our cash as consideration for our acquisition of nToggle, which closed in July 2017. At September 30, 2017, we had no amounts outstanding under our credit facility with SVB, and \$40.0 million was available for borrowing. An additional \$30.0 million may be available for borrowing in SVB's discretion at our request.

At our option, loans under the credit facility may bear interest based on either the LIBOR rate or the prime rate plus, in each case, an applicable margin. The applicable margins under the credit facility are (i) 2.00% or 3.50% per annum in the case of LIBOR rate loans, and (ii) 0.00% or 1.50% per annum in the case of prime rate loans (based on SVB's net exposure to us after giving effect to unrestricted cash held at SVB and its affiliates plus up to \$3.0 million held at other institutions). In addition, an unused revolver fee in the amount of 0.15% per annum of the average unused portion of the credit facility is payable by us to SVB monthly in arrears.

Our credit facility restricts our ability to, among other things, sell assets, make changes to the nature of our business, engage in mergers or acquisitions, incur, assume or permit to exist additional indebtedness and guarantees, create or permit to exist liens, pay dividends, make distributions on or redeem or repurchase capital stock, make certain other investments, engage in transactions with affiliates, and make payments in respect of subordinated debt, in each case unless approved by SVB.

In addition, in the event that the amount available to be drawn is less than 20% of the maximum amount of the credit facility, or if an event of default exists, we are required to satisfy a minimum fixed charge coverage ratio test of 1.10 to 1.00. Neither event existed as of September 30, 2017 so we were not subject to the fixed charge coverage ratio test. At September 30, 2017, our fixed charge coverage ratio was incalculable as there were no fixed charges as defined in the credit agreement.

The credit facility matures on September 28, 2018 and includes customary representations and warranties, affirmative covenants, and events of default, including events of default upon a change of control and material adverse change (as defined in the credit facility). Following an event of default, SVB would be entitled to, among other things, accelerate payment of amounts due under the credit facility and exercise all rights of a secured creditor. We were in compliance with the covenants under the credit facility at September 30, 2017.

We believe our existing cash and cash flow from operations, together with the undrawn balance under our credit facility with SVB, will be sufficient to meet our working capital requirements for at least the next 12 months. However, our liquidity assumptions may prove to be incorrect, and we could utilize our available financial resources sooner than we currently expect, particularly if we decide to pursue additional acquisitions or other strategic investment and if we are unable to generate cash from operations due to our strategic fee reduction, inability to grow revenue or control costs, or other reasons. In addition, SVB may, in its discretion, reduce the amount of borrowing available under our credit facility if, among other reasons, it believes that there exists any event, condition, contingency or risks that may adversely affect our assets, business, or prospects. Our future capital

requirements and the adequacy of available funds will depend on many factors, including those described in Part II, Item 1A: "Risk Factors."

In the future, we may attempt to raise additional capital through the sale of equity securities or through equity-linked or debt financing arrangements, although this would probably be difficult to accomplish on favorable terms given our operating results and current business trajectory. If we raise additional funds by issuing equity or equity-linked securities, the ownership of our existing stockholders will be diluted. If we raise additional financing by incurring indebtedness, we will be subject to increased fixed payment obligations and could also be subject to additional restrictive covenants, such as limitations on our ability to incur additional debt, and other operating restrictions that could adversely impact our ability to conduct our business. Any future indebtedness we incur may result in terms that could be unfavorable to equity investors.

There can be no assurances that we will be able to raise additional capital, and an inability to raise additional capital could adversely affect our ability to achieve our business objectives. In addition, if our operating performance during the next twelve months is below our expectations, our liquidity and ability to operate our business could be adversely affected.

Cash Flows

The following table summarizes our cash flows for the periods presented:

	Nine Months Ended	
	September 30, 2017	September 30, 2016
	(in thousands)	
Cash flows provided by operating activities	\$ 9,213	\$ 48,811
Cash flows used in investing activities	(58,060)	(21,279)
Cash flows provided by (used in) financing activities	(1,232)	10,047
Effects of exchange rate changes on cash, cash equivalents and restricted cash	186	(71)
Change in cash, cash equivalents and restricted cash	<u>\$ (49,893)</u>	<u>\$ 37,508</u>

Operating Activities

Our cash flows from operating activities are primarily influenced by increases or decreases in receipts from buyers and related payments to sellers, as well as our investment in personnel and infrastructure to support our business. Our future cash flows will be diminished if we cannot increase our revenue levels and manage costs appropriately. Cash flows from operating activities have been further affected by changes in our working capital, particularly changes in accounts receivable and accounts payable. The timing of cash receipts from buyers and payments to sellers can significantly impact our cash flows from operating activities for any period presented. We typically collect from buyers in advance of payments to sellers; our collection and payment cycle can vary from period to period depending upon various circumstances, including seasonality. Increases in revenue earned directly from advertisers and agencies may cause the amount of receipts from buyers collected in advance of payments to sellers to decrease, because advertisers and agencies may pay slowly. Recently, some buyers have begun demanding longer terms to pay us later and some sellers have begun demanding shorter terms to collect from us earlier. We may not have the leverage to resist these demands given the commodification of our business. If this continues, more of our cash will be required to fund our payment cycle and therefore not available for other uses.

For the nine months ended September 30, 2017, cash provided by operating activities of \$9.2 million resulted from our net loss of \$131.0 million adjusted for non-cash expenses of \$133.3 million, and net changes in our working capital of \$6.9 million. The net change in working capital resulted primarily from a decrease in accounts payable and accrued expenses of \$50.0 million and an increase in prepaid expenses and other assets of \$1.5 million, offset by a decrease in accounts receivable of \$58.9 million. The changes in accounts payable, accrued expenses and accounts receivable were primarily due to the timing of cash receipts from buyers and the timing of payments to sellers. The change in prepaid expenses and other assets was primarily due to increases in insurance rates and other receivables.

For the nine months ended September 30, 2016, cash provided by operating activities of \$48.8 million resulted from our net income of \$3.1 million, adjusted for non-cash expenses of \$47.0 million, offset by net changes in our working capital of \$1.3 million. The net change in working capital resulted primarily from a decrease in accounts payable and accrued expenses of \$63.1 million and an increase in prepaid expenses and other assets of \$3.3 million, offset by a decrease in accounts receivable of \$65.0 million. The changes in accounts payable and accrued expenses and accounts receivable were primarily due to the timing of cash receipts from buyers and the timing of payments to sellers. The change in prepaid expenses and other assets was primarily due to increases in insurance rates and other receivables.

As a result of reduced revenue attributable to the factors described above in the comparison of our results for the three and nine months ended September 30, 2017 and 2016, which we expect to continue to affect our business in the fourth quarter of

2017 and into 2018, and continued investment in our business, we expect that our cash balance will decline over at least the next few quarters. Our ability to avoid consumption of cash in our operations and to generate positive operating cash flows in the future will depend upon the success of our strategic initiatives to increase advertising spend on our platform and our ability to increase the efficiency of our operations.

Investing Activities

Our primary investing activities have consisted of investments in, and maturities of, available-for-sale securities, acquisitions of businesses, purchases of property and equipment, and capital expenditures to develop our internal use software in support of creating and enhancing our technology infrastructure. Purchases of property and equipment and investments in internal use software development may vary from period-to-period due to the timing of the expansion of our operations, the addition of headcount and the development cycles of our internal use software development. As our business evolves, we expect our capital expenditures and our investment activity to evolve as well, and generally to continue to increase over time as we execute on our strategy to be a high volume, low cost advertising exchange. Investments in, and maturities of, available-for-sale securities and acquisitions of businesses vary from period-to-period.

During the nine months ended September 30, 2017, we used \$58.1 million of cash for investing activities, consisting primarily of \$38.6 million for the acquisition of nToggle, net of cash acquired, \$14.6 million in purchases of property and equipment, net of amounts reflected in accounts payable and accrued expenses at September 30, 2017, and \$6.1 million of investments in our internal use software. These cash outflows were partially offset by the maturity of \$67.7 million of available-for-sale securities less \$66.4 million of investments in available-for-sale securities, a net inflow of \$1.3 million.

During the nine months ended September 30, 2016, we used \$21.3 million of cash in investing activities, consisting primarily of \$22.7 million of investments in available-for-sale securities, \$11.4 million in investments in property and equipment, net of amounts reflected in accounts payable and accrued expenses at September 30, 2016, and \$7.5 million of investments in our internal use software. These cash outflows were offset by inflows of \$20.6 million due to maturities of available-for-sale securities.

Financing Activities

Our financing activities consisted primarily of the issuance of shares of common stock upon the exercise of stock options.

For the nine months ended September 30, 2017, cash used by financing activities of \$1.2 million was primarily due to \$2.1 million in income tax deposits paid in respect of vesting of stock-based compensation awards that were reimbursed by the award recipients through surrender of shares, offset by issuance of common stock under the employee stock purchase plan of \$0.4 million and proceeds of \$0.4 million from stock option exercises.

For the nine months ended September 30, 2016, cash provided by financing activities of \$10.0 million was primarily due to proceeds of \$13.8 million from stock option exercises and proceeds of \$1.1 million from issuance of common stock under the employee stock purchase plan, offset by \$4.9 million in income tax deposits paid in respect of vesting of stock-based compensation awards that were reimbursed by the award recipients through surrender of shares.

Off-Balance Sheet Arrangements

We do not have any relationships with other entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities that have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. We did not have any other off-balance sheet arrangements at September 30, 2017 other than the operating leases and the indemnification agreements described below.

Contractual Obligations and Known Future Cash Requirements

Our principal commitments consist of leases for our various office facilities, including our corporate headquarters in Los Angeles, California, and non-cancelable operating lease agreements with data centers that expire at various times through 2024. At September 30, 2017, future non-cancelable minimum commitments relating to operating leases were \$26.7 million. In certain cases, the terms of the lease agreements provide for rental payments on a graduated basis. We received rental income from subleases totaling \$0.5 million as of September 30, 2017.

There were no significant changes to our unrecognized tax benefits in the nine months ended September 30, 2017 and we do not expect to have any significant changes to unrecognized tax benefits through December 31, 2017.

In the ordinary course of business, we enter into agreements with sellers, buyers, and other third parties pursuant to which we agree to indemnify buyers, sellers, vendors, lessors, business partners, lenders, stockholders, and other parties with respect to certain matters, including, but not limited to, losses resulting from claims of intellectual property infringement, damages to property or persons, business losses, or other liabilities. Generally, these indemnity and defense obligations relate to our own business

operations, obligations, and acts or omissions. However, under some circumstances, we agree to indemnify and defend contract counterparties against losses resulting from their own business operations, obligations, and acts or omissions, or the business operations, obligations, and acts or omissions of third parties. These indemnity provisions generally survive termination or expiration of the agreements in which they appear. In addition, we have entered into indemnification agreements with our directors, executive officers and certain other officers that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers, or employees. No demands for indemnification have been made as of September 30, 2017.

Critical Accounting Policies and Estimates

Our condensed consolidated financial statements are prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

We believe that the following assumptions and estimates have the greatest potential impact on our condensed consolidated financial statements: (i) the determination of revenue recognition as net versus gross in our revenue arrangements, (ii) internal-use software development costs, (iii) goodwill and intangible asset impairment analysis, (iv) assumptions used in the valuation models to determine the fair value of stock options and stock-based compensation expense, (v) the assumptions used in the valuation of acquired assets and liabilities in business combinations, and (vi) income taxes, including the realization of tax assets and estimates of tax liabilities. Therefore, we consider these to be our critical accounting policies and estimates. There have been no significant changes in our accounting policies from those disclosed in our audited consolidated financial statements and notes thereto for the year ended December 31, 2016 included in our Annual Report on Form 10-K.

Our revenue recognition policy is further described below, which is consistent with the policy included in our Annual Report referenced above.

Revenue Recognition

We generate revenue from buyers and sellers in transactions in which they use our solution for the purchase and sale of advertising inventory. We recognize revenue when four basic criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred or services have been rendered, (iii) the fees are fixed or determinable, and (iv) collectibility is reasonably assured. We maintain separate arrangements with each buyer and seller, generally in the form of a master agreement, which specifies the terms of the relationship and access to our solution. We recognize revenue upon the completion of a transaction, that is, when an impression has been delivered to the consumer viewing a website or mobile application. We assess whether fees are fixed or determinable based on impressions delivered and the contractual terms of the arrangements. We assess collectibility based on a number of factors, including the creditworthiness of a buyer and seller and payment and transaction history. Our revenue arrangements generally do not include multiple deliverables.

Revenue is reported depending on whether we function as principal or agent, as those terms are used in the applicable accounting rules. The determination of whether we act as the principal or the agent requires us to evaluate a number of indicators, none of which is presumptive or determinative. For transactions in which we are the principal, revenue is reported on a gross basis for the amount paid by buyers for the purchase of advertising inventory and related services and we record the amounts we pay to sellers as cost of revenue. For transactions in which we are the agent, revenue is reported on a net basis for the amount of fees charged to the buyer (if any), and fees retained from or charged to the seller.

As a result of the acquisition of Chango (which comprised our intent marketing solution) in April 2015, we began entering into arrangements for which we managed advertising campaigns on behalf of buyers. We were the principal in these arrangements as we: (i) were the primary obligor in the advertising inventory purchase transaction; (ii) established the purchase prices paid by the buyer; (iii) performed all billing and collection activities including the retention of credit risk; (iv) had latitude in selecting suppliers; (v) negotiated the price we pay to suppliers of inventory; and (vi) made all inventory purchasing decisions. Accordingly, for these arrangements we reported revenue on a gross basis. Because we ceased offering the intent marketing solution in the first quarter of 2017, we do not expect to report revenue on a gross basis after the first quarter of 2017 unless and until changes in our business or applicable accounting standards require gross reporting for at least some of our revenue.

For our other arrangements, in which our solution matches buyers and sellers, enables them to purchase and sell advertising inventory, and establishes rules and parameters for advertising inventory transactions, we report revenue on a net basis because we: (i) are not the primary obligor for the purchase of advertising inventory but rather provide a platform to facilitate the buying and selling of advertising; (ii) do not have pricing latitude as pricing is generally determined through our auction process and/or our fees are based on a percentage of advertising spend; and (iii) do not directly select suppliers.

Goodwill

Goodwill represents the excess of the aggregate fair value of the consideration transferred in a business combination over the fair value of the assets acquired, net of liabilities assumed. Goodwill is not amortized, but is subject to impairment testing conducted annually during the fourth quarter or more frequently if events or changes in circumstances indicate that goodwill may be impaired. For purposes of goodwill impairment testing, the Company operates as a single operating segment and has identified a single reporting unit. Events or changes in circumstances which could trigger an impairment review include a significant adverse change in legal factors or in the business climate, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, significant changes in the manner of the Company's use of the acquired assets or the strategy for the Company's overall business, significant negative industry or economic trends, or significant under performance relative to expected historical or projected future results of operations.

Testing goodwill for impairment involves a quantitative analysis whereby the estimated fair value of the Company is compared with its respective carrying amount, including goodwill. However, prior to performing this quantitative goodwill impairment test, the Company has the option to first assess qualitative factors to determine whether or not it is necessary to perform the quantitative goodwill impairment test. If the Company chooses the qualitative option, the Company is not required to perform the quantitative goodwill impairment test unless it has determined, based on the qualitative assessment, that it is more likely than not that the fair value of the Company is less than its carrying amount. If the quantitative impairment test is required or chosen, the impairment test involves comparing the estimated fair value of the Company with its respective carrying amount, including goodwill. If the estimated fair value of the Company exceeds its carrying amount, including goodwill, goodwill is considered not to be impaired and no additional steps are necessary.

In the third quarter of 2017, the Company identified potential indications of impairment and performed a quantitative goodwill impairment assessment and determined that the fair value of the Company was less than the carrying value, including goodwill. As a result, the Company recorded a goodwill impairment charge of \$90.3 million during the third quarter of 2017. Refer to Note 5 "Goodwill and Intangible Assets" for a description of the methods used to compute the impairment charge.

Recently Issued Accounting Pronouncements

For information regarding recent accounting pronouncements, refer to Note 1 "Organization and Summary of Significant Accounting Policies" to our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Item 3. Quantitative and Qualitative Disclosure About Market Risk

We have operations both within the United States and internationally, and we are exposed to market risks in the ordinary course of our business. These risks include primarily interest rate, foreign exchange, and inflation risks.

Interest Rate Fluctuation Risk

Our cash and cash equivalents consist of cash, money market funds, commercial paper and treasury and debt securities with original maturities of three months or less. Our investments consist of U.S. government and agency bonds and corporate debt securities. The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. Because our cash, cash equivalents, and investments have a relatively short maturity, our portfolio's fair value is relatively insensitive to interest rate changes. Our line of credit is at variable interest rates. We had no amounts outstanding under our credit facility at September 30, 2017. We do not believe that an increase or decrease in interest rates of 100 basis points would have a material effect on our operating results or financial condition. In future periods, we will continue to evaluate our investment policy relative to our overall objectives.

Foreign Currency Exchange Risk

We have foreign currency risks related to our revenue and expenses denominated in currencies other than the U.S. Dollar, principally British Pounds and Euros. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. We have experienced and will continue to experience fluctuations in our net income (loss) as a result of transaction gains and losses related to translating certain cash balances, trade accounts receivable and payable balances and intercompany balances that are denominated in currencies other than the U.S. Dollar. The effect of an immediate 10% adverse change in foreign exchange rates on foreign-denominated accounts at September 30, 2017, including intercompany balances, would result in a foreign currency loss of approximately \$1.3 million. In the event our non-U.S. Dollar-denominated sales and expenses increase, our operating results may be more greatly affected by fluctuations in the exchange rates of the currencies in which we do business. At this time we do not enter into derivatives or other financial instruments in an attempt to hedge our foreign currency exchange risk, but we may do so in the future. It is difficult to predict the impact hedging activities would have on our results of operations.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition, or results of operations. If our costs were to become subject to significant inflationary pressures, we might not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition, and results of operations.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e) under the Exchange Act. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives of ensuring that information we are required to disclose in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures, and is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. There is no assurance that our disclosure controls and procedures will operate effectively under all circumstances. Based upon the evaluation described above, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2017, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the three months ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Management recognizes that a control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud or error, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We and our subsidiaries may from time to time be parties to legal or regulatory proceedings, lawsuits and other claims incident to our business activities and to our status as a public company. Such matters may include, among other things, assertions of contract breach or intellectual property infringement, claims for indemnity arising in the course of our business, regulatory investigations or enforcement proceedings, and claims by persons whose employment has been terminated. Such matters are subject to many uncertainties, and outcomes are not predictable with assurance. Consequently, we are unable to ascertain the ultimate aggregate amount of monetary liability, amounts which may be covered by insurance or recoverable from third parties, or the financial impact with respect to such matters as of September 30, 2017. However, based on our knowledge as of September 30, 2017, we believe that the final resolution of such matters pending at the time of this report, individually and in the aggregate, will not have a material adverse effect upon our condensed consolidated financial position, results of operations or cash flows.

On March 31, 2017, Guardian News & Media Limited (Guardian) issued proceedings (the Complaint) against us in the Chancery Division of the High Court of Justice in England & Wales. The Complaint alleges that we underpaid Guardian for inventory sold by Guardian through our platform as a result of the fact that we charged fees to buyers of that inventory. Guardian claims we were precluded from charging buyer fees as a result of our contractual arrangements with Guardian and English agency law principles, as well as representations we allegedly made to Guardian. The Complaint claims damages including loss of revenue, interest, and costs, without specifying the amount of damages sought. We dispute Guardian's claims and are defending them vigorously, but the Complaint involves disputed facts and complex legal questions, and its outcome is therefore uncertain. Even if Guardian were to prevail in this action, we do not believe our payment of the damages we think could be recoverable by Guardian would have a material adverse effect upon our condensed consolidated financial position, results of operations, or cash flows. However, pending or in response to the outcome of this action, if we face similar claims from other

clients or as a preventative measure, we might decide to implement fee reductions or make other changes to our business practices that could have such material adverse effects.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. We describe risks associated with our business in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016 and in Part II, Item 1A of our subsequent Quarterly Reports on Form 10-Q (the "Risk Factors"). Each of the risks described in our Risk Factors may be relevant to decisions regarding an investment in or ownership of our stock. The occurrence of any such risks could have a significant adverse effect on our reputation, business, financial condition, revenue, results of operations, growth, or ability to accomplish our strategic objectives, and could cause the trading price of our common stock to decline. You should carefully consider such risks and the other information contained in this report, including our condensed consolidated financial statements and related notes and Management's Discussion and Analysis of Financial Condition and Results of Operations, before making investment decisions related to our common stock. Except as described below, there are no material changes to the Risk Factors of which we are currently aware. However, our Risk Factors cannot anticipate and fully address all possible risks of investing in our common stock, the risks of investing in our common stock may change over time, and additional risks and uncertainties that we are not aware of, or that we do not consider to be material, may emerge. Accordingly, you are advised to consider additional sources of information and exercise your own judgment in addition to the information we provide.

Our buyer fees have declined more quickly than we anticipated, resulting in severe erosion of our revenue

In an effort to be more competitive in attracting demand and capturing inventory supply, we made a strategic decision earlier in 2017 to reduce the fees we charge buyers in open market waterfall RTB transactions. In addition, our business mix continues to shift away from open market waterfall RTB transactions to header bidding, which has lower buyer fees. These factors have contributed to the decrease in our take rate, which was 24.9% in the third quarter of 2016 and had declined to 16.9% exiting the third quarter of 2017. In an effort to be more competitive in header bidding, we eliminated our buyer transaction fees for those transactions during October 2017. In response to increasing market pressure and in pursuit of our high-volume, low-margin strategy, on November 1, 2017 we eliminated our buyer transaction fees altogether. Taking into account the elimination of our buyer transaction fees on November 1, 2017, and assuming no increases in seller fees, our overall take rate will drop by approximately 400 to 500 basis points for the fourth quarter of 2017 compared to where we exited the third quarter of 2017 (reflecting the fact that we charged buyer fees on open market waterfall RTB transactions and some header bidding transactions in October), and approximately an additional 100 to 150 basis points for the first quarter of 2018 to reflect a full quarter impact. Unless and until we are able to compensate for loss of buyer fees by increasing advertising spend on our platform, through higher transaction volumes or higher transaction values or both, or by increasing seller fees, our revenue will continue to decline, we will not be able to grow our business, our cash resources may be depleted, and we may be forced to seek additional capital to support our business and operations. Therefore, in addition to pursuit of our growth strategies, we must find ways to operate much more efficiently, as additional investments in technology will continue to be required to support the increased volume of transactions on our exchange that our growth plans require. We are exploring ways to manage costs, including our IT infrastructure spending, but if we are not able to improve the efficiency of our operations and succeed with our growth strategies, our business may not be viable.

Market conditions are increasing the costs and risks of our operations

Due to various factors, including header bidding, market pressure from the increasing share of the digital advertising economy absorbed by Google and Facebook, and demands by both buyers and sellers of digital advertising for increased efficiency and value throughout the ecosystem, business conditions are becoming more difficult for intermediary businesses like ours. We see this in various ways. Both demand and supply for digital advertising inventory outside the "walled garden" companies are becoming less unique, contributing to commodification of the business. Buyers and sellers are demanding more favorable trade terms, which puts pressure on our cash collections cycle and can require more of our cash to fund our payments, making it unavailable to invest in growth. Buyers increasingly require us to accept liability for inventory quality and sellers increasingly require us to accept liability for ad content, despite the fact that we are not in direct control of either. Buyers and sellers are increasingly insisting upon using their own data to resolve discrepancies in transaction counts more favorably to them, resulting in some revenue loss. These and similar trends increase the costs and risks of our operations and put pressure on our margins.

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

(a) Recent Sales of Unregistered Securities

None.

(b) Use of Proceeds

Our initial public offering of common stock was effected through a Registration Statement on Form S-1 (File No. 333-193739), which was declared effective on April 1, 2014. There has been no material change in the planned use of proceeds

from our initial public offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b) of the Securities Act and other periodic reports previously filed with the SEC.

(c) Purchases of Equity Securities by the Company and Affiliated Purchasers

We currently have no publicly announced repurchase plan or program.

Upon vesting of most restricted stock units or stock awards, we are required to deposit statutory employee withholding taxes on behalf of the holders of the vested awards. As reimbursement for these tax deposits, we have the option to withhold from shares otherwise issuable upon vesting a portion of those shares with a fair market value equal to the amount of the deposits we paid. Withholding of shares in this manner is accounted for as a repurchase of common stock.

Common stock repurchases during the quarter ended September 30, 2017 were as follows (in thousands, except per share amounts):

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of a Publicly Announced Program	Maximum Approximate Dollar Value that May Yet be Purchased Under the Program
July 1 – July 31, 2017	—	\$ —	—	\$ —
August 1 – August 31, 2017	—	\$ —	—	\$ —
September 1 – September 30, 2017	5	\$ 3.91	—	\$ —

Item 6. Exhibits

Number	Description
3.1	Sixth Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2014).
3.2	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the Commission on April 8, 2016).
10.1+	Agreement, dated August 16, 2017, by and between Frank Addante and the Registrant (incorporated by reference to Exhibit 10. to the Registrant's Current Report on Form 8-K filed with the Commission on August 22, 2017).
31.1*	Certification of 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.
31.2*	Certification of Principal Financial 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*(1)	Certification of the Principal Executive Officer and Principal Financial Officer 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 Schema Linkbase Document
101.cal *	XBRL Taxonomy Calculation Linkbase Document
101.def *	XBRL Taxonomy Definition Linkbase Document
101.lab *	XBRL Taxonomy Label Linkbase Document
101.pre *	XBRL Taxonomy Presentation Linkbase Document

* Filed herewith

+ Indicates a management contract or compensatory plan or arrangement

(1) The information in this exhibit is furnished and deemed not filed with the Securities and Exchange Commission for purposes of section 18 of the Exchange Act of 1934, as amended (the "Exchange Act"), and is not to be incorporated by reference into any filing of The Rubicon Project, Inc. under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

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.

THE RUBICON PROJECT, INC.
(Registrant)

/s/ David Day

David Day

Chief Financial Officer
(Principal Financial Officer)

Date: November 2, 2017

**Certification of 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**

I, Michael Barrett, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of The Rubicon Project, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Signature:

/s/ Michael Barrett

Michael Barrett
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 2, 2017

**Certification of Principal Financial 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**

I, David Day, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of The Rubicon Project, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Signature:

/s/ David Day

David Day
Chief Financial Officer
(Principal Financial Officer)

Date: November 2, 2017

**CERTIFICATIONS OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. 1350), Michael Barrett, President and Chief Executive Officer (Principal Executive Officer) of The Rubicon Project, Inc. (the "Company"), and David Day, Chief Financial Officer (Principal Financial Officer) of the Company, each hereby certifies that, to the best of his knowledge:

1. Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, to which this certification is attached as Exhibit 32 (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 2, 2017

/s/ Michael Barrett

Michael Barrett
President and Chief Executive Officer
(Principal Executive Officer)

/s/ David Day

David Day
Chief Financial Officer
(Principal Financial Officer)

The foregoing certifications are being furnished pursuant to 13 U.S.C. Section 1350. They are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and are not to be incorporated by reference into any filing of the Company, regardless of any general incorporation language in such filing.