RUBICON PROJECT, INC.
Form 10-Q
November 08, 2018
RUBICON PROJECT, INC.10-QSeptember 30, 2018false2018Q3Accelerated
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended September 30, 2018
OR
o **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	**20-8881738**
(State or other jurisdiction of incorporation or organization)	(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. x Yes ¨ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). x 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 x
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company x
Emerging growth company x	

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). o Yes x 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 November 1, 2018**
Common Stock, $0.00001 par value	**50,751,765**

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, 2018		December 31, 2017	
ASSETS				
Current assets:				
Cash and cash equivalents	$	82,354	$	76,642
Marketable securities	14,486		52,504	
Accounts receivable, net	155,328		165,890	
Prepaid expenses and other current assets	8,781		9,620	
TOTAL CURRENT ASSETS	260,949		304,656	
Property and equipment, net	33,884		47,393	
Internal use software development costs, net	14,432		12,734	
Other assets, non-current	879		5,493	
Intangible assets, net	10,971		13,359	
TOTAL ASSETS	$	321,115	$	383,635
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable and accrued expenses	$	199,385	$	214,103
Other current liabilities	2,806		3,141	
TOTAL CURRENT LIABILITIES	202,191		217,244	
Other liabilities, non-current	1,172		1,780	
TOTAL LIABILITIES	203,363		219,024	
Commitments and contingencies (Note 11)				
STOCKHOLDERS' EQUITY				

Preferred stock, $0.00001 par value, 10,000 shares authorized at September 30, 2018 and December 31, 2017; 0 shares issued and outstanding at September 30, 2018 and December 31, 2017	—		—	
Common stock, $0.00001 par value; 500,000 shares authorized at September 30, 2018 and December 31, 2017; 50,751 and 50,239 shares issued and outstanding at September 30, 2018 and December 31, 2017, respectively	1		—	
Additional paid-in capital	431,294		418,354	
Accumulated other comprehensive income (loss)	(167)		41	
Accumulated deficit	(313,376)		(253,784)	
TOTAL STOCKHOLDERS' EQUITY	117,752		164,611	
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$	321,115	$	383,635

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

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

	Three Months Ended			Nine Months Ended
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Revenue	$ 29,729	$ 35,211	$ 83,253	$ 124,148
Expenses:				
Cost of revenue	14,687	12,985	44,514	41,371
Sales and marketing	10,654	12,503	34,046	39,660
Technology and development	9,299	11,580	29,038	36,377
General and administrative	9,355	13,644	33,340	43,079
Restructuring and other exit costs	—	—	3,440	5,959
Impairment of goodwill	—	90,251	—	90,251
Total expenses	43,995	140,963	144,378	256,697
Loss from operations	(14,266)	(105,752)	(61,125)	(132,549)
Other (income) expense:				
Interest income, net	(232)	(269)	(777)	(664)
Other income	(206)	(123)	(626)	(502)
Foreign exchange (gain) loss, net	(120)	242	(363)	1,093
Total other income, net	(558)	(150)	(1,766)	(73)
Loss before income taxes	(13,708)	(105,602)	(59,359)	(132,476)
Provision (benefit) for income taxes	84	(2,031)	233	(1,510)
Net loss	$ (13,792)	$ (103,571)	$ (59,592)	$ (130,966)
Net loss per share:				
Basic and Diluted	$ (0.27)	$ (2.11)	$ (1.19)	$ (2.69)
Weighted				

average shares used to compute net loss per share:				
Basic and Diluted	50,513	49,055	50,095	48,726

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, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Net loss	$ (13,792)	$ (103,571)	$ (59,592)	$ (130,966)
Other comprehensive income (loss):				
Unrealized gain on investments	9	3	15	3
Foreign currency translation adjustments	(99)	87	(223)	357
Other comprehensive income (loss)	(90)	90	(208)	360
Comprehensive loss	$ (13,882)	$ (103,481)	$ (59,800)	$ (130,606)

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
(In thousands)
(unaudited)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
December 31, 2017	50,239	$ —	$ 418,354	$ 41	$ (253,784)	$ 164,611
Exercise of common stock options	50	—	45	—	—	45
Restricted stock awards, net	(156)	—	—	—	—	—
Issuance of common stock related to employee stock purchase plan	89	—	143	—	—	143
Issuance of common stock related to RSU vesting	830	1	—	—	—	1
Shares withheld related to net share settlement	(301)	—	(658)	—	—	(658)
Stock-based compensation	—	—	13,410	—	—	13,410
Other comprehensive loss	—	—	—	(208)	—	(208)
Net loss	—	—	—	—	(59,592)	(59,592)
September 30, 2018	50,751	$ 1	$ 431,294	$ (167)	$ (313,376)	$ 117,752

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, 2018	**September 30, 2017**
OPERATING ACTIVITIES:		
Net loss	$ (59,592)	$ (130,966)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	26,355	27,154
Stock-based compensation	13,016	16,188
Impairment of goodwill	—	90,251
Loss on disposal of property and equipment	149	269
Provision for doubtful accounts	217	482
Accretion of available for sale securities	(374)	(163)
Unrealized foreign currency (gains) losses, net	(206)	372
Deferred income taxes	—	(1,453)
Changes in operating assets and liabilities, net of effect of business acquisitions:		
Accounts receivable	10,318	58,876
Prepaid expenses and other assets	2,919	(1,315)
Accounts payable and accrued expenses	(14,415)	(49,972)
Other liabilities	(939)	(510)
Net cash provided by (used in) operating activities	(22,552)	9,213
INVESTING ACTIVITIES:		
Purchases of property and equipment	(5,474)	(14,554)

Capitalized internal use software development costs	(6,569)	(6,127)
Acquisitions, net of cash acquired	—	(38,610)
Investments in available-for-sale securities	(23,991)	(66,419)
Maturities of available-for-sale securities	55,650	67,650
Sales of available-for-sale securities	9,228	—
Net cash provided by (used in) investing activities	28,844	(58,060)
FINANCING ACTIVITIES:		
Proceeds from exercise of stock options	45	391
Proceeds from issuance of common stock under employee stock purchase plan	143	444
Taxes paid related to net share settlement	(658)	(2,067)
Net cash used in financing activities	(470)	(1,232)
EFFECT OF EXCHANGE RATE CHANGES ON CASH, CASH EQUIVALENTS AND RESTRICTED CASH	(110)	186
CHANGE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	5,712	(49,893)
CASH, CASH EQUIVALENTS AND RESTRICTED CASH — Beginning of period	76,642	149,498
CASH, CASH EQUIVALENTS AND RESTRICTED CASH — End of period	$ 82,354	$ 99,605
SUPPLEMENTAL DISCLOSURES OF OTHER CASH FLOW INFORMATION:		

Cash paid for income taxes	$	272	$	348
Cash paid for interest	$	46	$	46
Capitalized assets financed by accounts payable and accrued expenses	$	3	$	2,065
Capitalized stock-based compensation	$	394	$	338

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 (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 is a global advertising exchange that 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 tens of billions of advertising transactions each month. The Company provides a technology solution to automate the purchase and sale of digital advertising inventory for buyers and sellers. The Company's platform features applications and services for digital advertising sellers, including websites, mobile applications and other digital media properties, and their representatives, to sell their digital advertising inventory; applications and services for buyers, including advertisers, agencies, agency trading desks, demand side platforms, or DSPs, to buy digital advertising inventory; and a marketplace over which such transactions are executed.

Together, these features power and enhance a comprehensive, transparent, independent advertising marketplace that brings buyers and sellers together and facilitates intelligent decision making and automated transaction execution for the digital advertising inventory managed on the Company's platform. The Company's clients include many of the world's leading publishers of websites and mobile applications and buyers of digital advertising inventory.

Advertising inventory takes different forms, referred to as advertising units, is purchased and sold through different transactional methodologies, and allows advertising content to be presented to consumers through different channels. The Company's solution enables buyers and sellers to purchase and sell:

- a comprehensive range of advertising units, including display, audio and video;
- that are transacted through real-time bidding ("RTB"), which includes (i) direct sale of premium inventory, which the Company refers to as private marketplace ("PMP"), and (ii) open auction bidding, which the Company refers to as open marketplace ("OMP"); and
- that are displayed across digital channels, including mobile web, mobile application, and desktop, as well as across various out-of-home channels, such as digital billboards.

Risks and Uncertainties

The Company has been negatively impacted by rapid changes in the ad tech industry, including demand by ad tech buyers for more efficiency and lower costs, changes in bidding technologies, and increased competition. In response to these challenges, the Company made significant reductions in fees charged to buyers during 2017 and in November 2017 eliminated its buyer fees altogether. The competitive pressures and reduced take rate resulted in lower revenue and cash flows in the first three quarters of 2018 compared to the prior year. In an effort to bring its costs into better alignment with reduced take rates, the Company undertook restructuring activities to reduce headcount and related operating costs, and also reduced its capital expenditures. Unless and until the Company is able to compensate for the fee reductions and reduced gross margins by continuing to increase advertising spend on its platform, or sufficiently reducing costs, it may not be able to grow its business and may continue to operate at a loss, depleting its cash resources and liquidity. If the Company continues to experience significant operating losses in the future, the Company may require additional liquidity to fund its operations.

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, 2018 are not necessarily indicative of the results that may be expected for any future interim period, the year ending December 31, 2018, or for any future year.

The condensed consolidated balance sheet at December 31, 2017 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, 2017 included in its 2017 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, 2017 included in its Annual Report on Form 10-K.

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.

Adoption of ASU 2018-07

The Company adopted ASU 2018-07—*Stock Compensation (Topic 718)* ("ASU 2018-07")*,* which expands the scope of Accounting Standards Codification Topic 718, Compensation—*Stock Compensation* to include share-based payments granted to non-employees in exchange for goods or services, as of July 1, 2018. As of the adoption date, the fair value of existing unvested awards held by non-employees was determined based on the adoption date fair value, which will be recognized over the remaining service period. Prospectively, the fair value of awards granted to non-employees will be determined as of the grant date and recognized over the service period, using the same treatment as awards granted to employees. In addition, for employees that transition into a non-employee contractor relationship with the Company subsequent to the adoption date, their existing awards will continue to be recognized at the original grant date fair value. There was no impact to the Company's consolidated financial statements resulting from the adoption of ASU 2018-07.

Other Recently Adopted Accounting Pronouncements

On January 1, 2018, the Company adopted the following accounting pronouncements, using a prospective adoption method, which did not have an impact on the Company's condensed consolidated financial statements and did not result in any significant policy changes:

• Accounting Standards Update ("ASU") 2017-01—*Business Combinations (Topic 805): Clarifying the Definition of a Business*; and

• ASU 2017-09—*Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting.*

The Company has also adopted ASU 2016-15—*Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,* although the retrospective adoption method did not have an impact on periods presented. The Company will apply this guidance to applicable future transactions.

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 February 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-02—*Leases (Topic 842)* ("ASU 2016-02")*,* which requires an entity to recognize right-of-use assets and lease liabilities on its balance sheet and disclose key information about leasing arrangements. ASU 2016-02 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. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period, with early adoption permitted. ASU 2016-02 required a modified retrospective adoption approach, however subsequent guidance (discussed below) provides an additional option for adoption approach. The Company plans to adopt ASU 2016-02 as of January 1, 2019 using a prospective adoption method in accordance with ASU 2018-11—*Leases (Topic 842): Targeted Improvements* ("ASU 2018-11"). The Company is currently evaluating the effect this guidance will have on its 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 July 2018, the FASB issued ASU 2018-11, which updates some of the implementation requirements under Accounting Standards Codification Topic 842 on leases. ASU 2018-11 provides for an additional adoption approach that was not previously included in ASU 2016-02 that allows for a prospective application. This guidance eliminates the requirement to present prior year comparative lease disclosures once ASU 2016-02 is adopted, and must be adopted concurrently with ASU 2016-02. The Company plans to apply the adoption method made available by ASU 2018-11.

In August 2018, the FASB issued ASU 2018-13—*Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), to streamline the disclosure requirements of ASC Topic 820—Fair Value Measurement. ASU 2018 removes certain disclosure requirements, including the valuation process for Level 3 fair value measurements, and adds certain quantitative disclosures around Level 3 fair value measurements. This ASU is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that reporting period, with early adoption permitted. The provisions of ASU 2018-13 are required to be adopted retrospectively, with the exception of disclosure of the range and weighted average of significant unobservable inputs used to develop Level 3 measurements, which can be adopted prospectively. The Company is currently evaluating the effect this guidance will have on its consolidated financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-15—*Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"). ASU 2018-15 was issued to clarify the requirements of ASC 350-40—*Intangibles—Goodwill and Other—Internal-Use Software* ("ASC 350-40"). The ASU clarifies that implementation, setup and other upfront costs related to cloud hosting agreements should be accounted for under ASC 350-40. This ASU is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that reporting period, with early adoption permitted. ASU 2018-15 can be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. The Company is currently evaluating the effect this guidance will have on its consolidated financial statements.

Note 2—Net Income (Loss) Per Share

The following table presents the basic and diluted net loss per share:

	Three Months Ended						**Nine Months Ended**	
	September 30, 2018		**September 30, 2017**		**September 30, 2018**		**September 30, 2017**	
	(in thousands, except per share data)							
Basic and Diluted EPS:								
Net loss	$	(13,792)	$	(103,571)	$	(59,592)	$	(130,966)
Weighted-average common shares outstanding	50,750		49,800		50,482		49,638	
Weighted-average unvested restricted stock awards	(237)		(745)		(387)		(912)	
Weighted-average common shares outstanding used to compute net loss per share	50,513		49,055		50,095		48,726	
Basic and diluted net loss per share	$	(0.27)	$	(2.11)	$	(1.19)	$	(2.69)

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

Three Months Ended			**Nine Months Ended**
September 30, 2018	**September 30, 2017**	**September 30, 2018**	**September 30, 2017**
(in thousands)			**(in thousands)**

Options to purchase common stock	162	187	72	154
Unvested restricted stock awards	208	130	232	240
Unvested restricted stock units	2,324	238	1,709	495
ESPP	94	44	64	49
Total shares excluded from net loss per share	2,788	599	2,077	938

Note 3—Revenue

On January 1, 2018, the Company adopted Accounting Standards Update 2014-09—*Revenue from Contracts with Customers (Topic 606)* ("ASU 2014-09") using a modified retrospective approach applied to all contracts that generated revenue in the preceding year. The adoption of this guidance did not have an impact on the amount or timing of revenue recognized by the Company.

The Company generates revenue from transactions where it provides a platform for the purchase and sale of digital advertising inventory. The Company's advertising automation solution is a marketplace for sellers of digital advertising inventory (providers of websites, mobile applications and other digital media properties, and their representatives) and buyers of digital advertising inventory (including advertisers, agencies, agency trading desks, and demand-side platforms). 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 digital advertising inventory managed on the Company's platform. Digital advertising inventory is created when consumers access sellers’ content. Sellers provide digital advertising inventory to the Company’s platform in the form of advertising requests, or ad requests. When the Company receives ad requests from sellers, it sends bid requests to buyers, which enable buyers to bid on sellers’ digital advertising inventory. Winning bids can create advertising, or paid impressions, for the seller to present to the consumer.

The total volume of spending between buyers and sellers on the Company’s platform is referred to as advertising spend. The Company keeps a percentage of that advertising spend as a fee, and remits the remainder to the seller. The fee or “take rate” that the Company retains from the gross advertising spend on its platform is recognized as revenue. The fee earned on each transaction is based on the pre-existing agreement between the Company and the seller and the clearing price of the winning bid. The Company recognizes revenue upon fulfillment of its performance obligation to a customer, which occurs at the point in time an ad renders and is counted as a paid impression, subject to an underlying agreement existing with the customer and a fixed or determinable transaction price. Performance obligations for all transactions are satisfied, and the corresponding revenue is recognized, at a distinct point in time when an ad renders. The Company does not have arrangements with multiple performance obligations. The Company considers the following when determining if a contract exists under which the performance obligations have been satisfied: (i) contract approval by all parties, (ii) identification of each party’s rights regarding the goods or services to be transferred, (iii) specified payment terms, (iv) commercial substance of the contract, and (v) collectability of substantially all of the consideration is probable.

The Company has determined that it does not act as the principal in the purchase and sale of digital advertising inventory because it does not have control of the digital advertising inventory and does not set prices agreed upon within the auction marketplace, and therefore reports revenue on a net basis. In periods prior to the second quarter of 2017, the Company reported revenue on a gross basis for revenue associated with its intent marketing solution, as the Company determined that it acted as the principal in the purchase and sale of digital advertising inventory. The Company ceased offering its intent marketing solution after the first quarter of 2017, after which time, all of the Company’s revenues have been recorded on a net basis. Revenue generated by the Company’s intent marketing solution in 2017 prior to its cessation was $1.3 million, which is included in total revenue for the nine months ended September 30, 2017.

Payment terms are specified in agreements between the Company and the buyers and sellers on its exchange platform. The Company generally bills buyers at the end of each month for the full purchase price of impressions filled in that month. The Company recognizes volume discounts as a reduction of revenue as they are incurred. Specific payment terms may vary by agreement, but are generally seventy-five days or less. 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. The Company's accounts payable related to amounts due to sellers are recorded at the net amount payable to sellers (see Note 5). Accordingly, both accounts receivable and accounts payable appear large in relation to revenue reported on a net basis.

The following table presents our revenue by channel for the three and nine months ended September 30, 2018 and 2017:

	Three Months Ended						**Nine Months Ended**					
	September 30, 2018			**September 30, 2017**			**September 30, 2018**			**September 30, 2017**		
	(in thousands, except percentages)											
Channel:												
Desktop	$	12,481	42 %	$	16,881	48 %	$	40,453	49 %	$	68,956	56 %
Mobile		17,248	58		18,330	52		42,800	51		55,192	44
Total	$	29,729	100 %	$	35,211	100 %	$	83,253	100 %	$	124,148	100 %

The following table presents our revenue disaggregated by geographic location, based on the location of the Company's sellers:

	Three Months Ended			Nine Months Ended
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
	(in thousands)			(in thousands)
United States	$ 19,731	$ 22,689	$ 54,201	$ 78,350
International	9,998	12,522	29,052	45,798
Total	$ 29,729	$ 35,211	$ 83,253	$ 124,148

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Note 4—Fair Value Measurements
Recurring 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, 2018:

	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	$ 19,078	$ 19,078	$ —	$ —
Corporate debt securities	$ 1,999	$ —	$ 1,999	$ —
U.S. Treasury, government and agency debt securities	$ 12,487	$ 12,487	$ —	$ —

The table below sets forth a summary of financial instruments that are measured at fair value on a recurring basis at December 31, 2017:

	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	$ 1,807	$ 210	$ 1,597	$ —
Corporate debt securities	$ 25,098	$ —	$ 25,098	$ —
U.S. Treasury, government and agency debt securities	$ 29,901	$ 29,901	$ —	$ —

At September 30, 2018 and December 31, 2017, cash equivalents of $19.1 million and $1.8 million, respectively, consisted of money market funds and commercial paper, 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 at December 31, 2017 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 (which are included in marketable securities on the balance sheet) with fair values derived from similar securities rather than based on quoted market prices for identical 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, and are included within marketable securities.

Non-Recurring Fair Value Measurements

Impairment of Goodwill

During the third quarter of 2017, the Company identified potential indications of impairment, which triggered a quantitative goodwill impairment assessment. The Company compared the fair value of its net assets, calculated using three valuation methodologies (one income approach and two market approaches), to the carrying value of the net assets. The fair value of the Company's net assets falls within Level 3 of the fair value hierarchy, as it was determined using unobservable inputs and relied on assumptions and estimates made by the Company's management. The valuation process is described below:

Income Approach. The Company first estimated the fair value of its net assets based on an income approach using the 2017 remaining year forecast, projections for growth from that base, and a terminal growth rate. The cash flows were discounted using the Company's estimated weighted average cost of capital rate of 16.2%. The value of net operating losses and the excess working capital were then added to the discounted cash flows to arrive at the income approach fair value of the Company's net assets.

Market Approach. The market approach used to determine the fair value of the Company's net assets was based upon a review of private and public company control transactions involving comparable companies. 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 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, specifically EBITDA, were analyzed and applied to the Company'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.

The Company compared the fair value of its net assets using the three methodologies (one income approach and two market approaches) described above, to the carrying value and determined that its goodwill was fully impaired. The Company recorded an impairment of $90.3 million in the third quarter of 2017 to adjust its goodwill balance to its fair value of zero.

Note 5—Other Balance Sheet Amounts

Investments in marketable securities as of September 30, 2018 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	$ 12,501	$ —	$ (14)	$ 12,487
Corporate debt securities	1,999	—	—	1,999
Total	$ 14,500	$ —	$ (14)	$ 14,486

Investments in marketable securities as of December 31, 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	$ 27,426	$ —	$ (20)	$ 27,406
Corporate debt securities	25,098	—	—	25,098
Total	$ 52,524	$ —	$ (20)	$ 52,504
Available-for-sale—long-term:				
U.S. Treasury, government and agency debt securities	$ 2,504	$ —	$ (9)	$ 2,495

The Company's available-for-sale securities had a weighted remaining contractual maturity of 0.2 years as of September 30, 2018. For the nine months ended September 30, 2018, the Company sold $9.2 million of available-for-sale investments, on which the realized gains were de minimis and there were no unrealized holding gains (losses) reclassified out of accumulated other comprehensive loss into the condensed consolidated statements of operations.

Accounts payable and accrued expenses included the following:

	September 30, 2018	December 31, 2017
	(in thousands)	
Accounts payable—seller	$ 188,659	$ 203,694
Accounts payable—trade	5,081	3,764
Accrued employee-related payables	5,645	6,645
Total	$ 199,385	$ 214,103

As of December 31, 2016, the Company had $0.1 million of restricted cash, which is included in the beginning balance of cash, cash equivalents and restricted cash in the condensed consolidated statement of cash flows for the nine months ended September 30, 2017. Subsequent to that date, the Company has had no restricted cash.

Note 6—Goodwill and Intangible Assets

The Company’s intangible assets as of September 30, 2018 and December 31, 2017 included the following:

	September 30, 2018	December 31, 2017
	(in thousands)	
Amortizable intangible assets:		
Developed technology	$ 16,878	$ 16,878
Non-compete agreements	690	690
Trademarks	20	20
Total identifiable intangible assets, gross	17,588	17,588
Accumulated amortization—intangible assets:		
Developed technology	(6,182)	(4,062)
Non-compete agreements	(419)	(161)
Trademarks	(16)	(6)
Total accumulated amortization—intangible assets	(6,617)	(4,229)
Total identifiable intangible assets, net	$ 10,971	$ 13,359

Amortization of intangible assets for the three months ended September 30, 2018 and 2017 were $0.8 million and $1.2 million, respectively, and $2.4 million and $3.5 million for the nine months ended September 30, 2018 and 2017, respectively. The estimated remaining amortization expense associated with the Company's intangible assets was as follows as of September 30, 2018:

Fiscal Year	Amount
	(in thousands)

2018	$	797
2019	3,010	
2020	2,826	
2021	2,826	
2022	1,512	
Thereafter	—	
Total	$	10,971

The Company recorded a goodwill impairment charge of $90.3 million during the third quarter of 2017, refer to Note 4 for additional details regarding the related valuation assessment process.

Note 7—Business Combinations

2017 Acquisition—nToggle, Inc.

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 was 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, which represents total purchase consideration of $40.6 million less acquired cash and cash equivalents of $2.0 million, to the stockholders, warrantholders, 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 consolidated financial statements since the date of the acquisition.
The major classes of assets and liabilities to which the Company allocated the purchase price were as follows as of the acquisition date:

	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 included 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 years
Non-compete agreements	690		2 years
Trademark & trade name	20		1.5 years
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 4 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 - nToggle Acquisition
The following table provides unaudited condensed pro forma information to give effect to the nToggle acquisition as if it had occurred on January 1, 2017. 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
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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 date indicated, nor are they indicative of the actual or future operating results of the combined company.

	Three Months Ended September 30, 2017		Nine Months Ended September 30, 2017	
Pro forma revenues	$	35,270	$	125,083
Pro forma net loss	$	(103,895)	$	(134,665)

nToggle's technology was fully integrated into the Company's platform, and its pre-acquisition product is not 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 was impracticable.

Note 8—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 awards ("RSAs"), and restricted stock units ("RSUs"), 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. RSAs and RSUs vest at varying rates, typically approximately 25% vesting after approximately one year of service and the remainder vesting semi-annually thereafter. The RSUs granted in the first nine months of 2018 included 2,800,000 RSUs that vest 50% on each of the first and second anniversaries of the grant date. Options, RSAs, and RSUs granted under the plans accelerate under certain circumstances for certain participants upon a change in control, as defined in the governing plan. An aggregate of 6,148,378 shares remained available for future grants at September 30, 2018 under the plans.

Stock Options

A summary of stock option activity for the nine months ended September 30, 2018 is as follows:

	Shares Under Option (in thousands)	Weighted- Average Exercise Price		Weighted- Average Contractual Life	Aggregate Intrinsic Value (in thousands)	
Outstanding at December 31, 2017	4,363	$	8.75			
Granted	706	$	2.09			
Exercised	(50)	$	0.91			
Expired	(1,239)	$	10.15			
Forfeited	(49)	$	4.54			
Outstanding at September 30, 2018	3,731	$	7.18	7.0 years	$	1,469
Exercisable at September 30, 2018	2,198	$	9.49	5.8 years	$	467

The total intrinsic values of options exercised during the nine months ended September 30, 2018 was $0.1 million. At September 30, 2018, the Company had unrecognized employee stock-based compensation expense relating to nonvested stock options of approximately $3.8 million, which is expected to be recognized over a weighted-average period of 2.5 years. The weighted-average grant date fair value per share of stock options granted during the nine months ended September 30, 2018 was $1.10. Total fair value of options vested during the nine months ended September 30, 2018 was $2.7 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, 2018	**September 30, 2017**	**September 30, 2018**	**September 30, 2017**
Expected term (in years)	5.4	5.3	5.7	5.8
Risk-free interest rate	2.75%	1.88%	2.53%	2.03%
Expected volatility	55%	62%	57%	57%
Dividend yield	—%	—%	—%	—%

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Restricted Stock Awards

A summary of RSA activity for the nine months ended September 30, 2018 is as follows:

	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value	
Nonvested shares of restricted stock awards outstanding at December 31, 2017	558	$	12.60
Granted	—	$	—
Canceled	(156)	$	13.82
Vested	(176)	$	11.81
Nonvested shares of restricted stock awards outstanding at September 30, 2018	226	$	12.37

The aggregate fair value of RSAs with service conditions that vested during the nine months ended September 30, 2018 was $0.5 million. At September 30, 2018, the Company had unrecognized stock-based compensation expense for RSAs with service conditions of $1.1 million, which is expected to be recognized over a weighted-average period of 1.2 years.

Restricted Stock Units

A summary of RSU activity for the nine months ended September 30, 2018 is as follows:

	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value	
Nonvested restricted stock units outstanding at December 31, 2017	3,609	$	7.55
Granted	4,904	$	2.27
Canceled	(948)	$	5.27
Vested	(830)	$	8.02
Nonvested restricted stock units outstanding at September 30, 2018	6,735	$	3.97

The weighted-average grant date fair value per share of RSUs granted during the nine months ended September 30, 2018 was $2.27. The aggregate fair value of RSUs that vested during nine months ended September 30, 2018 was $1.8

million. At September 30, 2018, the intrinsic value of nonvested RSUs was $24.2 million. At September 30, 2018, the Company had unrecognized stock-based compensation expense relating to nonvested RSUs of approximately $20.1 million, which is expected to be recognized over a weighted-average period of 2.3 years.

Employee Stock Purchase Plan

In November 2013, the Company adopted the Company's 2014 Employee Stock Purchase Plan ("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 are able 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, 2018, the Company has reserved 1,692,373 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, 2018	September 30, 2017	September 30, 2018	September 30, 2017
	(in thousands)			(in thousands)
Cost of revenue	$ 72	$ 115	$ 256	$ 295
Sales and marketing	1,187	1,115	3,530	3,524
Technology and development	691	1,122	2,163	3,178
General and administrative	1,910	2,294	6,669	7,631
Restructuring and other exit costs	—	—	398	1,560
Total stock-based compensation expense	$ 3,860	$ 4,646	$ 13,016	$ 16,188

Note 9—Restructuring and Other Exit Costs

As part of its on-going efforts to control costs and create efficiencies, the Company underwent restructuring events throughout 2017 and in the first quarter of 2018. The objective of these restructuring activities was to streamline operations, prioritize resources for growth initiatives and increase profitability.

In January 2017, the Company announced that it would cease providing intent marketing services and would close its Toronto, Canada office as a result. For the nine months ended September 30, 2017, the Company recognized expenses of $6.0 million as restructuring and other exit costs related to the cessation of our intent marketing solution, including the closure of the Toronto office, as well as the realignment of the management team to a more cost efficient structure (collectively, the "2017 Restructuring Events"). A majority of the costs incurred in the nine months ended September 30, 2017 were severance and one-time termination benefit costs, of which $1.6 million related to non-cash stock-based compensation, the remainder of which related to facility closure costs. There were no restructuring and other exit costs incurred during the three months ended September 30, 2017.

In the first quarter of 2018, the Company announced its restructuring plan to reduce headcount to bring the Company's general and administrative operations into better alignment with the current size of the business and de-layer certain functions, and to reduce its investment in unprofitable projects (the "2018 Restructuring Events"). During the nine months ended September 30, 2018, the Company incurred restructuring and other exit costs of $3.4 million for severance and one-time termination benefits. There were no restructuring and other exit costs incurred during the three months ended September 30, 2018.

The following table summarizes restructuring and other exit cost activity for the 2018 Restructuring Events (in thousands):

Accrued restructuring and other exit costs at December 31, 2017	$ —

Restructuring and other exit costs	3,440	
Cash paid for restructuring and other exit costs	(2,884)	
Non-cash stock-based compensation for restructuring and other exit costs	(398)	
Accrued restructuring and other exit costs at September 30, 2018	$	158

Accrued restructuring costs related to the 2017 Restructuring Events were $0.1 million at December 31, 2017 and were paid in the first half of 2018. Accrued restructuring costs are included within other liabilities on the Company's condensed consolidated balance sheets.

Note 10—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 expenses of $0.1 million and $0.2 million for the three and nine months ended September 30, 2018, respectively, and recorded income tax benefits of $2.0 million and $1.5 million for the three and nine months ended September 30, 2017, respectively. The tax provision for the three and nine months ended September 30, 2018 is primarily the result of the domestic valuation allowance and the tax liability associated with the foreign subsidiaries.

On December 22, 2017, the U.S. government enacted the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act includes significant changes to the U.S. corporate income tax system including the following: a federal corporate rate reduction from 34% to 21%; limitations on the deductibility of executive compensation and research and development (“R&D”) expenditures; immediate expensing of qualified property; the creation of new minimum taxes such as the base erosion anti-abuse tax (“BEAT”) and Global Intangible Low Taxed Income (“GILTI”) tax; and the transition of U.S. international taxation from a worldwide tax system to a modified territorial tax system, which will result in a one time U.S. tax liability on those earnings which have not previously been repatriated to the U.S. (the “Transition Tax”).

The Tax Act imposes a Transition Tax on previously untaxed accumulated and current earnings and profits (“E&P”) of certain of our foreign subsidiaries. To determine the amount of the Transition Tax, the Company determined, among other things, the amount of post-1986 E&P of the relevant subsidiaries. The Company recorded a provisional Transition Tax of $0.6 million, which reduced its U.S. net deferred tax assets for the year ended December 31, 2017. For the nine months ended September 30, 2018, there was no change to the provisional Transaction Tax recorded in the prior period.

The SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared or analyzed in reasonable detail to complete the accounting for certain income tax effects of the Tax Act and allows the registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. The Company has recognized the actual impact of the revaluation of deferred tax balances and the provisional impact related to the one-time Transition Tax. The Company included these amounts in its consolidated financial statements for the year ended December 31, 2017. The ultimate impact may materially differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions that have been made, additional regulatory guidance that may be issued, and actions that may be taken as a result of the Tax Act. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

In addition, it is unclear how many U.S. states will incorporate the federal law changes, or portions thereof, into their tax codes and foreign governments may enact tax laws in response to the Tax Act that could result in further changes to global taxation and materially affect the Company's financial position and results of operations.

Finally, the Tax Act imposes a new BEAT, essentially a 10% minimum tax (5% for tax years beginning after December 31, 2017, increasing to 10% for years beginning after December 31, 2018) calculated on a base equal to taxpayer’s income determined without tax benefits arising from base erosion payments. BEAT does not apply to corporations whose annual gross receipts for the three-taxable-year period ending with the preceding taxable year are less than $500 million. BEAT does not apply to the Company for the year ending December 31, 2018. Also, the Tax Act requires certain GILTI income earned by controlled foreign corporations (“CFCs”) to be included in the gross income of the CFCs’ U.S. shareholder (for tax years beginning after December 31, 2017). For the nine months ended September 30, 2018, the Company has included a provisional GILTI inclusion of $1.2 million for purposes of Accounting Standards Codification Topic 740. GAAP allows the Company to either (i) treat taxes due on future U.S. inclusions in taxable income related to BEAT and GILTI as current-period expense when incurred (the “period cost method”); or (ii) factor such amounts into the measurement of deferred taxes (the “deferred method”). The Company elected the period cost method.

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, 2018, 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. During the second quarter of 2018, the Company received a Letter 590 from the IRS indicating that they had completed the examination and found no income tax related adjustments.

Note 11—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 $3.2 million and $3.1 million for the three months ended September 30, 2018 and 2017, respectively, and $9.7 million and $9.4 million for the nine months ended September 30, 2018 and 2017, respectively. Additionally, expenses for cloud-based services related to data centers were $1.6 million and $0.8 million for the three months ended September 30, 2018 and 2017, respectively, and $5.0 million and $3.6 million for the nine months ended September 30, 2018 and 2017, respectively. As of September 30, 2018, expected future commitments related to operating leases were $16.8 million. As of September 30, 2018 and December 31, 2017, the Company had $2.9 million of letters of credit associated with office leases available for borrowing, on which there were no outstanding borrowings as of either date.

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, 2018. However, based on management’s knowledge as of September 30, 2018, 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 alleged that the Company underpaid Guardian for digital advertising 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 claimed 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 it allegedly made to Guardian. The Complaint claimed damages including loss of revenue, interest, and costs. On October 11, 2018, the Company and Guardian mutually agreed to resolve their dispute and the High Court proceedings have been discontinued. Though the terms of the settlement agreement are confidential, the settlement is immaterial to the Company from a financial standpoint.

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.

Note 12—Debt

On September 26, 2018, the Company amended and restated its loan and security agreement with Silicon Valley Bank (the "Loan Agreement"), which was scheduled to expire on September 27, 2018. The Loan Agreement provides a senior secured revolving credit facility of up to $40.0 million with a maturity date of September 26, 2020. The amount available for borrowing as of September 30, 2018 is $30.0 million due to a $10.0 million reserve that will be released if the Company maintains positive Adjusted EBITDA for any trailing twelve-month period. The Company incurred $0.1 million of debt issuance fees that were capitalized and are being amortized over the term of the Loan Agreement.

An unused revolver fee in the amount of 0.15% per annum of the average unused portion of the revolver line is charged and is payable monthly in arrears. The Company may elect for advances to bear interest calculated by reference to prime or LIBOR. If the Company elects LIBOR, amounts outstanding under the amended credit facility bear interest at a rate per annum equal to LIBOR plus 2.50% if a streamline period applies or LIBOR plus 4.00% if a streamline period does not apply. If the Company elects prime, advances bear interest at a rate of prime plus 0.50% if a streamline period applies or prime plus 2.00% if a streamline period does not apply. A streamline period is any period during which an event of default does not exist and the Company's Adjusted Quick Ratio (as defined in the Loan Agreement) is at least 1.05 for each day in the preceding month.

The Loan Agreement is collateralized by security interests in substantially all of the Company's assets. Subject to certain exceptions, the Loan Agreement restricts the Company's ability to, among other things, pay dividends, sell assets, make changes to the nature of the business, engage in mergers or acquisitions, incur, assume or permit to exist, additional indebtedness and guarantees, create or permit to exist, liens, make distributions or redeem or repurchase capital stock, or make other investments, engage in transactions with affiliates, make payments with respect to subordinated debt, and enter into certain transactions without the consent of the financial institution. If a streamline period is not in effect, the Company is required to maintain a lockbox arrangement where customer payments received in the lockbox will immediately reduce the amounts outstanding on the credit facility.

The Loan Agreement requires the Company to comply with financial covenants, including a minimum Adjusted Quick Ratio and the achievement of certain Adjusted EBITDA targets. On a monthly basis, or quarterly if there were no advances outstanding during the calendar quarter, the Company is required to maintain a minimum Adjusted Quick Ratio of: (i) 1.00 if the trailing six month adjusted EBITDA is $0 or less, or (ii) 0.90 if the trailing six month adjusted EBITDA is greater than $0. If the Company’s Adjusted Quick Ratio is 1.05 or greater, a streamline period applies. As of September 30, 2018, the Company's Adjusted Quick Ratio was 1.2, which is in compliance with its covenant requirement and is higher than the minimum Adjusted Quick Ratio required to qualify for a streamline period. The Company must also maintain the following trailing twelve month Adjusted EBITDA targets as of the end of each quarter as follows: (1) September 30, 2018 through June 30, 2019 Adjusted EBITDA must be within 20% of the Adjusted EBITDA projections that were delivered to Silicon Valley Bank; (2) September 30, 2019 Adjusted EBITDA of $1 or greater; and (3) December 31, 2019 and thereafter, Adjusted EBITDA of $5.0 million or greater. As of September 30, 2018, the Company was in compliance with the Adjusted EBITDA covenant.

The Loan Agreement also 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 Loan Agreement). 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.

As of September 30, 2018, there were no amounts outstanding under the Loan Agreement. Future availability under the credit facility is dependent on several factors including the available borrowing base and compliance with future covenant requirements.

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, non-GAAP net revenue, non-GAAP loss per share, profitability, net income (loss), Adjusted EBITDA, earnings per share, and cash flow; strategic objectives, including focus on header bidding, mobile, video, 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; the effects of our cost reduction initiatives; scope and duration of client relationships; the fees we may charge in the future; business mix and expansion of our mobile, video and private marketplace offerings; sales growth; client utilization of our offerings; our competitive differentiation; our market share and leadership position in the industry; market conditions, trends, and opportunities; consumer reach; certain statements regarding future operational performance measures including ad requests, fill rate, paid impressions, average CPM, take rate, and advertising spend; 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 reliance on large sources of advertising demand;*
- *our ability to maintain and grow a supply of digital 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 for purchase and sale of higher value digital advertising inventory 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, and otherwise adapt in response to client demands and industry trends, including shifts in digital advertising growth from desktop to mobile channels and from display to video formats;*
- *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, guaranteed audience solutions, and traffic shaping;*
- *declined fees and take rate and the need to grow through advertising spend increases rather than fee increases;*
- *our ability to compensate for a reduced 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 support our growth objectives with reduced resources from our cost reduction initiatives;*
- *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;*

• *increased prevalence of ad-blocking technologies and browsers that block cookies or otherwise allow users to limit ad tracking;*
• *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;*
- *the effects of consolidation in the ad tech industry, such as AT&T's acquisition of AppNexus;*
- *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 for discounts, fee concessions or revisions, rebates, refunds, favorable payment terms 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, the European General Data Protection Regulation (GDPR), the California Consumer Privacy Act, and other 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, 2017 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 provide a technology solution to automate the purchase and sale of digital advertising inventory for buyers and sellers. Our platform features applications and services for digital advertising inventory sellers, including websites, mobile applications, other digital media properties, and their representatives to sell their digital advertising inventory; applications and services for buyers, including advertisers, agencies, agency trading desks, and demand side platforms, or DSPs, to buy digital advertising inventory; and a marketplace over which such transactions are executed. Together, these features power and enhance a comprehensive, transparent, independent advertising marketplace that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the digital advertising inventory we manage on our platform. Our clients include many of the world's leading publishers of websites and mobile applications and buyers of digital advertising inventory.

Advertising inventory takes different forms, referred to as advertising units, is purchased and sold through different transactional methodologies, and allows advertising content to be presented to consumers through different channels. Our solution enables buyers and sellers to purchase and sell:

- a comprehensive range of advertising units, including display, audio and video;

• that are transacted through real-time bidding ("RTB"), which includes (i) direct sale of premium inventory, which we refer to as private marketplace ("PMP"), and (ii) open auction bidding, which we refer to as open marketplace ("OMP"); and

• that are displayed across digital channels, including mobile web, mobile application, and desktop, as well as across various out-of-home channels, such as digital billboards.

We generate revenue from transactions where we provide a platform for the purchase and sale of digital advertising inventory. Digital advertising inventory is created when consumers access sellers' content. Sellers provide digital advertising inventory to our platform in the form of advertising requests, or ad requests. When we receive ad requests from sellers, we send bid requests to buyers, which enable buyers to bid on sellers' digital advertising inventory. Winning bids can create advertising, or paid impressions, for the seller to present to the consumer. The volume of paid impressions measured as a percentage of ad requests is referred to as fill rate. The price that buyers pay for each thousand paid impressions purchased is measured in units referred to as CPM.

The total volume of spending between buyers and sellers on our platform is referred to as advertising spend. We keep a percentage of that advertising spend as a fee, and remit the remainder to the seller. The fee or "take rate" that we retain from the gross advertising spend on our platform is recognized as revenue. The fee earned on each transaction is based on the pre-existing agreement between the Company and the seller and the clearing price of the winning bid. 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

The programmatic digital advertising market continues to experience growth. In September 2018, MAGNA estimated that the global programmatic market (excluding search and social) will grow from $34 billion in 2018 to $60 billion by 2022, which represents a 15% compound annual growth rate over that period. Another important trend in the digital advertising industry is the continued expansion of automated buying and selling of advertising inventory 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 MAGNA estimates, mobile advertising is forecasted to be an $18 billion global market in 2018 that is expected to increase to $43 billion by 2022, producing a compound annual growth rate of 24%.

Consistent with industry trends, our mobile business is growing faster than desktop. Our mobile advertising spend increased $99.0 million, or 40%, for the nine months ended September 30, 2018, compared to the nine months ended September 30, 2017. Our desktop business remained flat during the same period, although it increased 6% in the third quarter of 2018 compared to the third quarter of 2017. Our mobile business consists of two components, mobile web and mobile applications. Initially our mobile business was built upon mobile web, which is more similar to our desktop business and subject to many of the same market pressures as discussed below, and as a result has experienced low or negative growth in recent periods. While our mobile web business is trending more in line with desktop, our mobile application business, which is where we see the greatest potential for growth, has shown growth rates in excess of industry projections. Advertising spend from mobile applications is approaching half of our mobile business.

The growth of automated buying and selling of advertising is also expanding into geographic markets outside of the United States, and in some markets, the adoption rate of programmatic digital advertising is greater than in the United States. We attribute advertising spend to the geographic location of the seller on whose inventory the advertising spend was directed. Our markets outside of the United States are more heavily built upon desktop display advertising than they are on mobile, and as such are subject to the same factors impacting our desktop business as described below. In addition, as programmatic advertising has grown in markets outside of the United States, we have seen more competitors enter those markets aggressively and gain market share. As a result of these and other factors, including slower adoption of video ad units and a slower adoption of header bidding, the portion of our advertising spend attributed to markets outside the United States declined to 35% during the nine months ended September 30, 2018 from 39% during the same period in 2017. 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.

Macro Trends Impacting Desktop

These market factors 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 MAGNA, programmatic desktop advertising is expected to grow at a 1% compound annual growth rate over the 2018-2022 period. This results from the market shift to mobile channels noted above. 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 50% of advertising spend in the first nine months of 2018. As noted above, our advertising spend in desktop remained flat compared to the prior year period. In addition to the ongoing industry shift away from desktop to mobile, year-over-year growth in our desktop business is hampered further by the continued migration to header bidding, which to date has been focused primarily on desktop display advertising inventory. Header bidding has resulted in adverse revenue effects for us when comparing the nine months ended September 30, 2018 to the same period in 2017 due to loss to competitors of some inventory that we would otherwise have been able to sell through our platform. While header bidding has increased competition for inventory, it also has made available to us significant amounts of inventory that previously we were unable to access, and while our traditional desktop display business has declined, our header bidding solution gained significant traction in 2017 and through the first nine months of 2018.

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 the potential for 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 the remainder of 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, 2017, 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 display business has declined and no longer can be relied upon to be the primary growth driver of our business. Our strategic focus is on growth areas—including mobile, video, and PMPs—that are expected to represent a majority of our advertising spend in 2018. However, despite our solid progress in mobile, our traditional desktop display business is expected to continue to represent a significant part of our business in the near term. Therefore, the weight of our desktop display business will continue to have a significant adverse effect on our growth until our advertising spend mix has shifted more fully to growth areas.

Year-Over-Year Take Rate Decline

Ad tech exchange intermediaries like us have used different revenue models in OMP transactions, including charging fees only to sellers or arbitraging the purchase and sale of ad impressions. Our approach was historically to charge fees to both buyers and sellers in OMP transactions conducted on our exchange, consistent with the fact that we provide services to each. Traditionally, for OMP waterfall transactions, we ran a modified second price auction in which the clearing price was the greater of the second highest bid in the auction plus one cent or the applicable price floor. Our buyer fees were determined algorithmically and added to the clearing price to determine the price charged to the winning bidder. Our take rate was made up of the total fees we charge buyers and sellers. In the third quarter of 2017, our take rate was 18.1%.

In late 2017, we reduced and then eliminated our buyer fees as a result of three strategic moves we made in response to market conditions. First, in response to market demands for more efficiency and lower cost from intermediaries like us, and in an effort to be more competitive in attracting demand and capturing supply, we made a strategic decision to reduce the fees we charged buyers in OMP waterfall transactions.

Second, the mix of OMP transactions on our exchange had shifted from approximately three quarters conducted through the traditional ad server waterfall at the end of December 2016 to approximately half through the ad server waterfall as of September 30, 2017. In traditional OMP waterfall 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 OMP waterfall 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 seller evaluates bids from all its demand sources, and generally the highest bid wins. This competition pushes auction clearing prices much closer to the winning first-price bid than OMP waterfall transactions. In order to be more competitive and give our buyers a better chance of winning the header bidding impressions on which they bid, we began charging lower buyer fees for header bidding transactions so that we could pass higher priced bids into the downstream auction. Based upon experience with this approach and client feedback, in October 2017 we began offering a modified first price auction dynamic in our header bidding solution without buyer fees. Subsequently, in an effort to capture more inventory for our buyers and deliver better monetization to our sellers, and to provide better transparency and predictability to all our clients, effective as of January 22, 2018, we made first price our default auction dynamic for header bidding transactions. This means that the first price or highest bid in our auction wins and that first price is passed to the downstream auction. Because buyers needed time to adapt their systems and bidding strategies to first-price auction dynamics and maximize advertising campaign returns and performance, or may prefer not to develop their own first price pricing algorithms, we built and implemented an optional feature at no additional cost, which we call Estimated Market Rate ("EMR"). This feature uses algorithms that monitor existing market conditions against our dataset of auction outcomes to look for opportunities to reduce the amount of the bid that we pass through to the downstream auction on behalf of our winning bidder, while maintaining high fill rates. This is intended to help buyers bid on digital advertising inventory consistent with market values while preserving demand and budget for sellers on our platform. In addition to increasing the rate at which buyers win in our auctions, and the monetization that that winning provides to sellers, our first price auction dynamic and EMR solution have contributed to higher CPMs for our header bidding inventory.

Third, as the ad tech industry has matured and evolved, competition has increased and pricing has become more transparent. The primary buyers in our OMP 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 exchanges disclose and limit or eliminate buyer fees, and DSPs and their clients may reduce or eliminate spending on exchanges that charge buyer fees. In addition, some sellers believe that buyer fees ultimately reduce seller revenue, and therefore are seeking to cap or eliminate buyer fees on sale of their inventory. In response to these market trends, and consistent with our strategy to be a high volume, low cost and transparent exchange, we stopped charging our 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 revenue now consists 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 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 fee. We do this at the discretion of sellers that allocate digital advertising inventory through a decisioning process that follows after 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 depending upon various factors including inventory and auction characteristics and seller policies.

These strategic price reductions contributed to the decrease in our take rate from 18.1% for the three months ended September 30, 2017 to 12.3% for the three months ended September 30, 2018.

Our strategic pricing reductions are intended to address the market's demand for lower costs and to attract more inventory and spending to our platform. Lower pricing has caused our revenue and margins to decline significantly during the first nine months of 2018 compared to the corresponding period in 2017, even though ad spend has grown. In order to adjust to our lower take rates and return to growth, we must continue to increase advertising spend on our platform. Increases in PMP and header bidding transactions as a percentage of the activity on our exchange could yield higher advertising spend despite lower take rates due to higher CPMs typically associated with PMP 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. We have seen significant increases in the volume of ad requests we receive, but 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—header bidding now represents approximately 80% of our revenue—we need to participate in more header bidding auctions and increase the fill rate in 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 as well as ongoing innovation to address evolving client needs, capture business, and improve our fill rate.

Prior to the elimination of buyer fees, such fees represented approximately half of our revenue for the first ten months of

2017, and we do not expect to be able to grow advertising spend or reduce costs quickly enough in the near term to make up for the elimination of these fees. This resulted in significant cash consumption to support operations during 2018. Unless and until we are able to compensate for elimination of our buyer fees by increasing advertising spend on our platform, through higher transaction volumes or higher transaction values or both, or by increasing seller fees, we will not be able to grow our business and our cash resources will diminish until such time as growth offsets our reduced level of operating expenses.

Therefore, while we work to increase the volume of transactions on our exchange and compete more effectively, we must operate more efficiently to relieve the pressure on our margins and cash resources that has resulted from our price reductions and to compensate for the ongoing investments in technology and data processing capabilities required to support the increased volume of transactions that our growth plans require. Consequently, we are continuously evaluating our costs and pursuing additional cost-control and efficiency opportunities, including increased automation, across all aspects of the Company. As part of these efforts, during the first quarter of 2018 we undertook measures to reduce headcount by approximately 100 people, or 19% of our workforce, and to reduce other operating costs. Our actions included reductions in administrative staff to bring our general and administrative operations into better alignment with the current size of the business as well as in sales and technical personnel as a result of offshoring certain development functions, organizational delayering and restructuring, and reducing investment in unprofitable projects.

Uncertainty Resulting from GDPR

The European General Data Protection Regulation, or GDPR, added significant new regulatory requirements that are applicable to us as well as our clients and competitors. Some critical elements of the GDPR are still unclear, and there has not been time for consistent regulatory guidance to be developed, or for established industry compliance practices to emerge. In particular and despite being past the implementation date, uncertainty about the requirements regarding end-user consent, and diverging interpretations among sellers and buyers as to the adequacy of any consent that is obtained, could result in the removal of personal data from bid requests, which will lower the value of the impressions, resulting in reduced revenue and advertising spend for us. Until prevailing industry standards emerge, our revenue from European sellers could fluctuate from quarter to quarter.

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 the purchase and sale of digital advertising inventory through our marketplace. 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 within Note 3 of the accompanying Notes to the Condensed Consolidated Financial Statements.

Expenses

We classify our expenses into the following 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 our 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 amortization, 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 consist primarily of employee termination costs, including stock-based compensation charges, and facility closure costs.
Other (Income), Expense
Interest (Income) Expense, Net. Interest income consists of interest earned on our cash equivalents and marketable securities. Interest expense is mainly related to our credit facility and was insignificant for the nine months ended September 30, 2018 and 2017.

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.

Provision (Benefit) for Income Taxes

Provision (benefit) for income taxes consists of federal, state, and foreign income taxes and is primarily the result of the domestic valuation allowance and the tax liability associated with foreign subsidiaries. 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.

On December 22, 2017, the U.S. government enacted the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act includes significant changes to the U.S. corporate income tax system including the following: a federal corporate rate reduction from 34% to 21%; limitations on the deductibility of executive compensation and research and development (“R&D”) expenditures; immediate expensing of qualified property; the creation of new minimum taxes such as the base erosion anti-abuse tax (“BEAT”) and Global Intangible Low Taxed Income (“GILTI”) tax; and the transition of U.S. international taxation from a worldwide tax system to a modified territorial tax system, which will result in a one time U.S. tax liability on those earnings which have not previously been repatriated to the U.S. (the “Transition Tax”).

The Tax Act imposes a Transition Tax on previously untaxed accumulated and current earnings and profits (“E&P”) of certain of our foreign subsidiaries. To determine the amount of the Transition Tax, we determined, among other things, the amount of post-1986 E&P of the relevant subsidiaries. We recorded a provisional Transition Tax of $0.6 million, which reduced our U.S. net deferred tax assets for the year ended December 31, 2017. For the nine months ended September 30, 2018, there was no change to the provisional Transaction Tax recorded in the prior period.

The SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared or analyzed in reasonable detail to complete the accounting for certain income tax effects of the Tax Act and allows the registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. We have recognized the actual impact of the revaluation of deferred tax balances and the provisional impact related to the one-time Transition Tax. We included these amounts in our consolidated financial statements for the year ended December 31, 2017. The ultimate impact may materially differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions that have been made, additional regulatory guidance that may be issued, and actions that may be taken as a result of the Tax Act. We expect to complete our analysis within the measurement period in accordance with SAB 118.

In addition, it is unclear how many U.S. states will incorporate the federal law changes, or portions thereof, into their tax codes and foreign governments may enact tax laws in response to the Tax Act that could result in further changes to global taxation and materially affect our financial position and results of operations.

Finally, the Tax Act imposes a new BEAT, essentially a 10% minimum tax (5% for tax years beginning after December 31, 2017, increasing to 10% for years beginning after December 31, 2018) calculated on a base equal to taxpayer’s income determined without tax benefits arising from base erosion payments. BEAT does not apply to corporations whose annual gross receipts for the three-taxable-year period ending with the preceding taxable year are less than $500 million. BEAT does not apply to the Company for the year ending December 31, 2018. Also, the Tax Act requires certain GILTI income earned by controlled foreign corporations (“CFCs”) to be included in the gross income of the CFCs’ U.S. shareholder (for tax years beginning after December 31, 2017). For the nine months ended September 30, 2018, we have included a provisional GILTI inclusion of $1.2 million for purposes of Accounting Standards Codification Topic 740. GAAP allows us to either (i) treat taxes due on future U.S. inclusions in taxable income related to BEAT and GILTI as current-period expense when incurred (the “period cost method”); or (ii) factor such amounts into the measurement of deferred taxes (the “deferred method”). We elected the period cost method.

Results of Operations

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

	Three Months Ended		Favorable/(Unfavorable) %	Nine Months Ended		Favorable/(Unfavorable) %
	September 30, 2018	September 30, 2017		September 30, 2018	September 30, 2017	
	(in thousands)			(in thousands)		
Revenue	$ 29,729	$ 35,211	(16)%	$ 83,253	$ 124,148	(33)%
Expenses (1)(2):						
Cost of revenue	14,687	12,985	(13)%	44,514	41,371	(8)%
Sales and marketing	10,654	12,503	15%	34,046	39,660	14%
Technology and development	9,299	11,580	20%	29,038	36,377	20%
General and administrative	9,355	13,644	31%	33,340	43,079	23%
Restructuring and other exit costs	—	—	NM	3,440	5,959	42%
Impairment of goodwill	—	90,251	100%	—	90,251	100%
Total expenses	43,995	140,963	69%	144,378	256,697	44%
Loss from operations	(14,266)	(105,752)	87%	(61,125)	(132,549)	54%
Other income, net	(558)	(150)	272%	(1,766)	(73)	NM
Loss before income taxes	(13,708)	(105,602)	87%	(59,359)	(132,476)	55%
Provision (benefit) for income taxes	84	(2,031)	NM	233	(1,510)	NM
Net loss	$ (13,792)	$ (103,571)	87%	$ (59,592)	$ (130,966)	54%

NM - Not Meaningful

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

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
	(in thousands)		(in thousands)	
Cost of revenue	$ 72	$ 115	$ 256	$ 295
Sales and marketing	1,187	1,115	3,530	3,524

Technology and development	691	1,122	2,163	3,178
General and administrative	1,910	2,294	6,669	7,631
Restructuring and other exit costs	—	—	398	1,560
Total stock-based compensation expense	$ 3,860	$ 4,646	$ 13,016	$ 16,188

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

	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
	(in thousands)		(in thousands)	
Cost of revenue	$ 8,271	$ 7,221	$ 24,785	$ 23,645
Sales and marketing	141	135	455	888
Technology and development	215	615	683	1,612
General and administrative	140	207	432	1,009
Total depreciation and amortization expense	$ 8,767	$ 8,178	$ 26,355	$ 27,154

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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, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Revenue	100%	100%	100%	100%
Cost of revenue	49	37	53	33
Sales and marketing	36	36	41	32
Technology and development	31	33	35	29
General and administrative	32	38	40	35
Restructuring and other exit costs	—	—	4	5
Impairment of goodwill	—	256	—	72
Total expenses	148	400	173	206
Loss from operations	(48)	(300)	(73)	(106)
Other income, net	(2)	—	(2)	—
Loss before income taxes	(46)	(300)	(71)	(106)
Provision (benefit) for income taxes	—	(6)	1	(1)
Net loss	(46)%	(294)%	(72)%	(105)%

Comparison of the Three and Nine Months Ended September 30, 2018 and September 30, 2017

Revenue

Revenue decreased $5.5 million, or 16%, for the three months ended September 30, 2018 compared to the three months ended September 30, 2017. The decrease was primarily due to the elimination of our buyer fees beginning in November 2017, market and competitive pressures, and header bidding dynamics as described above in "Industry Trends and Trends in Our Business".

For the nine months ended September 30, 2018, revenue decreased $40.9 million, or 33%, compared to the prior year period, primarily for the same reasons described above for the three month period. The decrease for the nine month period was also impacted by the cessation of our intent marketing solution in March 2017.

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. In addition to the elimination of buyer transaction fees resulting in lower take rate, an increase in PMP transactions as a percentage of the transactions on our platform could contribute to lower take rates because PMP transactions can carry lower fees than OMP transactions. 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, unless and until we are able to compensate for the reduction in our fees by continuing to increase 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 will diminish until such time as growth offsets our reduced level of operating expenses.

Cost of Revenue

Cost of revenue increased by $1.7 million, or 13%, for the three months ended September 30, 2018 compared to the three months ended September 30, 2017, primarily due to an increase of $1.1 million in depreciation and amortization expenses related to continued investment in our network technology infrastructure to keep up with impression demand. In addition, there was an increase of $0.8 million in data center and bandwidth expenses to support the increase in our transaction volume. Slightly offseting these increases was a $0.2 million decrease in personnel costs.

For the nine months ended September 30, 2018, cost of revenue increased $3.1 million, or 8%, compared to the prior year period. The increase was primarily due to an increase of $3.1 million in data center and bandwidth expenses to support the increase in our transaction volume. In addition, depreciation and amortization expenses increased $1.1 million, as noted above, which was partially offset by a $0.6 million reduction in media costs related to the cessation of our intent marketing solution during the first quarter of 2017.

We expect cost of revenue to be higher in absolute dollars in 2018 compared to 2017 as a result of increased spending on data centers, serving costs, and technology to process the greater volumes of data and transactions we will need to grow revenue. 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 depreciation and amortization of equipment and software.

Sales and Marketing

Sales and marketing expenses decreased $1.8 million or 15% for the three months ended September 30, 2018 compared to the three months ended September 30, 2017, primarily due to a decrease of $1.1 million in sales and marketing personnel costs as a result of our 2018 cost control initiatives. Sales and marketing professional services costs also decreased compared to the prior year period.

For the nine months ended September 30, 2018, sales and marketing expenses decreased $5.6 million, or 14%, compared to the prior year period. The decrease is attributable to our 2017 and 2018 cost reduction measures, including the realignment of our management team, primarily consisting of a $3.2 million decrease in personnel costs as well as decreases across other expenses necessary to support our reduced headcount. Professional services also decreased $0.6 million.

We expect sales and marketing expenses to continue to decline in the remainder of 2018 compared to 2017 as a result of headcount reductions and other cost control measures we implemented in the first quarter of 2018, as described below. 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

Technology and development expenses decreased by $2.3 million, or 20%, for the three months ended September 30, 2018 compared to the three months ended September 30, 2017, primarily due to a decrease of $2.0 million in personnel costs as a result of our 2018 cost control initiatives.

For the nine months ended September 30, 2018, technology and development expenses decreased by $7.3 million, or 20%, compared to the prior year period. Technology and development personnel costs decreased $5.6 million for the nine months ended September 30, 2018 compared to the prior year period, primarily as a result of our 2017 and 2018 cost control initiatives. In addition, depreciation and amortization expenses decreased $0.9 million compared to the prior year period due to the cessation of our intent marketing services offering and closure of our Toronto office in the first quarter of 2017.

We expect technology and development expense to continue to decline in the remainder of 2018 compared to 2017 as a result of headcount reductions we implemented in the first quarter of 2018, as described below, and we expect additional savings in 2018 as we improve our efficiencies in technology development while continuing to invest in our engineering and technology teams. 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

General and administrative expenses decreased by $4.3 million, or 31%, for the three months ended September 30, 2018 compared to the three months ended September 30, 2017. The decrease is primarily attributable to a decrease of $2.9 million in personnel costs due to a decrease in employee headcount, including our 2018 restructuring events. In addition, professional services expenses decreased by $1.1 million due to a reduction in the use of third party service providers in an effort to control costs.

For the nine months ended September 30, 2018, general and administrative expenses decreased by $9.7 million, or 23%, compared to the prior year period. The decrease was primarily attributable to a $5.2 million decrease in personnel related expenses due to a decrease in employee headcount, including our 2017 and 2018 restructuring events, as well as decreases across other expenses necessary to support our reduced headcount. Professional service expenses also decreased $3.0 million, including reductions in legal fees and consultant services. General and administrative depreciation and amortization costs also decreased $0.6 million due to accelerated amortization of certain capitalized software assets in 2017.

We expect quarterly general and administrative expense to continue to decline in the remainder of 2018 compared to 2017 as a result of headcount reductions and other cost control measures we implemented in the first quarter 2018, as described below. 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 that may not be directly proportional to changes in revenue.

Restructuring and Other Exit Costs

We incurred restructuring and other exit costs of $3.4 million for severance and other one-time employee termination benefits during the nine months ended September 30, 2018 related to headcount reductions that were made in the first quarter of 2018, as described below. For the nine months ended September 30, 2017, we incurred $6.0 million of restructuring and other one-time termination benefits expenses, primarily in severance and one-time employee termination benefits and facility closure costs, as a result of the management restructuring and the costs associated with the shut-down of our intent marketing services (see Note 9). There were no restructuring and other exit costs incurred during the three months ended September 2018 and 2017.

As part of our on-going evaluation of efficiency and implementation of cost-control measures, during the first quarter of 2018 we undertook measures to reduce headcount by approximately 100 people, or 19% of our workforce, and to reduce other operating costs. Our actions included reductions in administrative staff to bring our general and administrative operations into better alignment with the current size of the business, as well as in sales and technical personnel as a result of offshoring certain development functions, organizational delayering and restructuring, and reducing investment in unprofitable projects. We estimated the 2018 restructuri

To date, we have met our quarterly run-rate target for operating expenses and we expect to fully realize these savings throughout the remainder of 2018.

Other (Income) Expense, Net

	Three Months Ended			Nine Months Ended
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
	(in thousands)			(in thousands)
Interest income, net	$ (232)	$ (269)	$ (777)	$ (664)
Other income	(206)	(123)	(626)	(502)
Foreign exchange (gain) loss, net	(120)	242	(363)	1,093
Total other income, net	$ (558)	$ (150)	$ (1,766)	$ (73)

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 gain, net during the three and nine months ended September 30, 2018 was primarily attributable to the strengthening of the U.S. Dollar in relation to the Euro and the British Pound for foreign currency denominated transactions.

Provision for Income Taxes

We recorded income tax expenses of $0.1 million and $0.2 million for the three and nine months ended September 30, 2018, respectively, and income tax benefits of $2.0 million and $1.5 million for the three and nine months ended September 30, 2017, respectively. The tax provision for the three and nine months ended September 30, 2018 is primarily the result of the domestic valuation allowance and the tax liability associated with foreign subsidiaries.

Non-GAAP Financial Measures and Operational Performance Measures

In addition to our GAAP results, we review certain non-GAAP financial measures 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, 2018 (in thousands)	September 30, 2017	September 30, 2018	September 30, 2017 (in thousands)
Financial Measures and non-GAAP Financial Measures:				
Revenue	$ 29,729	$ 35,211	$ 83,253	$ 124,148
Advertising spend	$ 242,171	$ 195,019	$ 690,856	$ 590,950
Non-GAAP net revenue	$ 29,729	$ 35,211	$ 83,253	$ 123,515
Net loss	$ (13,792)	$ (103,571)	$ (59,592)	$ (130,966)
Adjusted EBITDA	$ (1,433)	$ (2,286)	$ (21,128)	$ 1,814
Operational Measure:				
Take Rate %	12.3 %	18.1 %	12.1 %	20.9 %

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Advertising Spend

We define advertising spend as the total volume of spending between buyers and sellers 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, our ability to fill ad requests, 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. In the past, we have experienced higher advertising spend during the fourth quarter of a given year because many buyers devote a disproportionate amount of their advertising budgets to this period of the year to coincide with increased holiday purchasing. Buyers' focus on the fourth quarter generates more bidding activity on our platform, which may drive higher volumes of paid impressions, average CPM, or both.

Our advertising spend grew 24% and 17% for the three and nine months ended September 30, 2018, respectively, compared to the same periods in 2017. The increase in advertising spend was driven by higher ad request volumes and an increase in the CPMs generated from our auctions. The increase in CPMs was driven by increased bidding activity on our platform, the value of the inventory that we made available to buyers, including PMP, mobile and video inventory that typically carries higher pricing, and auction dynamics, including the implementation of first price auctions and EMR for our header bidding inventory.

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

	Three Months Ended		**Nine Months Ended**	
	September 30, 2018	**September 30, 2017**	**September 30, 2018**	**September 30, 2017**
	(in thousands)		**(in thousands)**	
Revenue	$ 29,729	$ 35,211	$ 83,253	$ 124,148
Plus amounts paid to sellers(1)	212,442	159,808	607,603	466,802
Advertising spend	$ 242,171	$ 195,019	$ 690,856	$ 590,950

(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 tables present revenue and advertising spend in dollar terms by channel and as a percentage of total revenue or advertising spend for the three and nine months ended September 30, 2018 and 2017.

	Revenue				**Advertising Spend**			
	Three Months Ended				**Three Months Ended**			
	September 30, 2018		**September 30, 2017**		**September 30, 2018**		**September 30, 2017**	
	(in thousands, except percentages)							
Channel:								
Desktop	$ 12,481	42%	$ 16,881	48%	$ 109,317	45%	$ 103,325	53%
Mobile	17,248	58	18,330	52	132,854	55	91,694	47
Total	$ 29,729	100%	$ 35,211	100%	$ 242,171	100%	$ 195,019	100%

	Revenue		**Advertising Spend**	
	Nine Months Ended		**Nine Months Ended**	
	September 30, 2018	**September 30, 2017**	**September 30, 2018**	**September 30, 2017**
	(in thousands, except percentages)			

Channel:											
Desktop	$	40,453	49%	$	68,956	56%	$	346,404	50%	$	345,481	58%
Mobile		42,800	51		55,192	44		344,452	50		245,469	42
Total	$	83,253	100%	$	124,148	100%	$	690,856	100%	$	590,950	100%

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Non-GAAP Net Revenue

We define non-GAAP net revenue as GAAP revenue less amounts we pay sellers, where the amounts paid are included within cost of revenue for the portion of our revenue reported on a gross basis. The portion of our revenue reported on a gross basis was attributable to intent marketing services, which no longer generated revenue after the first quarter of 2017. Historically, non-GAAP net revenue was a useful measure in assessing the performance of our business in periods for which our revenue included revenue reported on a gross basis, because it showed the operating results of our business on a consistent basis without the effect of differing revenue reporting (gross vs. net) that we applied under GAAP across different types of transactions, and facilitated comparison of our results to the results of companies that report all of their revenue on a net basis. Revenue from intent marketing services in the first quarter of 2017 created the difference between our non-GAAP net revenue and our GAAP revenue for that period. We ceased offering our intent marketing solution in the first quarter of 2017, so for subsequent periods non-GAAP net revenue is the same as GAAP revenue, as there is no longer a reconciling item between GAAP and non-GAAP net revenue. Non-GAAP net revenue is presented for comparative purposes as the first quarter of 2017 still included the intent marketing solution reconciling item.

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 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 business. Because we exited that business in the first quarter of 2017, we do not expect to report any revenue on a gross basis after the first quarter of 2017 unless and until we change our business practices, develop new products, or make an acquisition, in each case with characteristics that require gross reporting.

The following table presents a reconciliation of revenue to non-GAAP net revenue for the three and nine months ended September 30, 2018 and 2017.

	Three Months Ended			**Nine Months Ended**
	September 30, 2018	**September 30, 2017**	**September 30, 2018**	**September 30, 2017**
	(in thousands)			**(in thousands)**
Revenue	$ 29,729	$ 35,211	$ 83,253	$ 124,148
Less amounts paid to sellers(1)	—	—	—	633
Non-GAAP net revenue	$ 29,729	$ 35,211	$ 83,253	$ 123,515

(1) Represents amounts paid to sellers included within cost of revenue.

Non-GAAP net revenue decreased in the current period compared to the prior year due to a lower take rate, as noted within "Industry Trends and Trends in Our Business", which was partially offset by the increase in advertising spend.

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 is and will remain an element of our long-term incentive compensation package, although we exclude it as an expense in Adjusted EBITDA 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 the write-down of goodwill, intangible assets and/or long-lived assets, although we exclude these charges as expenses in Adjusted EBITDA when evaluating our ongoing operating performance for a particular period.
• 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 fluctuation in our revenue and the timing and amounts of our investments in our operations.

The following table presents a reconciliation of net loss, the most comparable GAAP measure, to Adjusted EBITDA for the three and nine months ended September 30, 2018 and 2017.

	Three Months Ended			**Nine Months Ended**
	September 30, 2018	**September 30, 2017**	**September 30, 2018**	**September 30, 2017**
	(in thousands)			**(in thousands)**
Net loss	$ (13,792)	$ (103,571)	$ (59,592)	$ (130,966)
Add back (deduct):				
Depreciation and amortization expense, excluding amortization of acquired intangible assets	7,971	7,021	23,967	23,633
Amortization of acquired intangibles	796	1,157	2,388	3,521
Stock-based compensation expense	3,860	4,646	13,016	16,188
Impairment of goodwill	—	90,251	—	90,251
Acquisition and related items	—	268	—	268

Interest income, net	(232)	(269)	(777)	(664)
Foreign exchange (gain) loss, net	(120)	242	(363)	1,093
Provision (benefit) for income taxes	84	(2,031)	233	(1,510)
Adjusted EBITDA	$ (1,433)	$ (2,286)	$ (21,128)	$ 1,814

The decline in adjusted EBITDA for the three and nine months ended September 30, 2018 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 by dividing revenue (or for periods in which we have revenue reported on a gross basis, non-GAAP net revenue) 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 types, the implementation of new products, platforms and solution features, auction dynamics, competitive factors, our strategic pricing decisions, and the overall development of the digital advertising ecosystem.

The significant declines in our take rates for the three and nine month periods ended September 30, 2018 compared to the same periods in 2017 resulted primarily from the reduction and elimination of buyer fees as discussed above in "Industry Trends and Trends in Our Business—*Take Rate Decline*". Subsequent to the elimination of buyer fees, take rates have stabilized and increased slightly. Our take rate was 11.8% in the first quarter of 2018, 12.1% in the second quarter of 2018, and 12.3% in the third quarter of 2018.

Liquidity and Capital Resources

Our principal sources of liquidity are our cash and cash equivalents, marketable securities, cash generated from operations, and our credit facility with Silicon Valley Bank ("SVB"). At September 30, 2018, we had cash and cash equivalents of $82.4 million, of which $18.8 million was held in foreign currency cash accounts, and marketable securities of $14.5 million. Our cash and marketable securities balances are affected by our results of operations, the timing of capital expenditures which are typically greater in the second half of the year, and 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 and our liquidity for, and within, any period presented. Our collection and payment cycle can vary from period to period depending upon various circumstances, including seasonality.

On September 26, 2018, we amended and restated our loan and security agreement with SVB (the "Loan Agreement"), which was scheduled to expire on September 27, 2018. The Loan Agreement provides a senior secured revolving credit facility of up to $40.0 million with a maturity date of September 26, 2020. The amount available for borrowing as of September 30, 2018 is $30.0 million due to a $10.0 million reserve that will be released if we maintain positive Adjusted EBITDA for any trailing twelve-month period.

An unused revolver fee in the amount of 0.15% per annum of the average unused portion of the revolver line is charged and is payable monthly in arrears. We may elect for advances to bear interest calculated by reference to prime or LIBOR. If we elect LIBOR, amounts outstanding under the amended credit facility bear interest at a rate per annum equal to LIBOR plus 2.50% if a streamline period applies or LIBOR plus 4.00% if a streamline period does not apply. If we elect prime, advances bear interest at a rate of prime plus 0.50% if a streamline period applies or prime plus 2.00% if a streamline period does not apply. A streamline period is any period during which an event of default does not exist and our Adjusted Quick Ratio (as defined in the Loan Agreement) is at least 1.05 for each day in the preceding month.

The Loan Agreement is collateralized by security interests in substantially all of our assets. Subject to certain exceptions, the Loan Agreement restricts our ability to, among other things, pay dividends, sell assets, make changes to the nature of the business, engage in mergers or acquisitions, incur, assume or permit to exist, additional indebtedness and guarantees, create or permit to exist, liens, make distributions or redeem or repurchase capital stock, or make other investments, engage in transactions with affiliates, make payments with respect to subordinated debt, and enter into certain transactions without the consent of the financial institution. If a streamline period is not in effect, we are required to maintain a lockbox arrangement where customer payments received in the lockbox will immediately reduce the amounts outstanding on the credit facility.

The Loan Agreement requires us to comply with financial covenants, including a minimum Adjusted Quick Ratio and the achievement of certain Adjusted EBITDA targets. On a monthly basis, or quarterly if there were no advances outstanding during the calendar quarter, we are required to maintain a minimum Adjusted Quick Ratio of: (i) 1.00 if the trailing six month adjusted EBITDA is $0 or less, or (ii) 0.90 if the trailing six month adjusted EBITDA is greater than $0. If our Adjusted Quick Ratio is 1.05 or greater, a streamline period applies. As of September 30, 2018, our Adjusted Quick Ratio was 1.2, which is in compliance with the covenant requirement and is higher than the minimum Adjusted Quick Ratio required to qualify for a streamline period. We must also maintain the following trailing twelve month Adjusted EBITDA targets as of the end of each quarter as follows: (1) September 30, 2018 through June 30, 2019 Adjusted EBITDA must be within 20% of the Adjusted EBITDA projections that were delivered to Silicon Valley Bank; (2) September 30, 2019 Adjusted EBITDA of $1 or greater; and (3) December 31, 2019 and thereafter, Adjusted EBITDA of $5.0 million or greater.

The Loan Agreement also 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 Loan Agreement). 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.

At September 30, 2018, we had no amounts outstanding under our Loan Agreement with SVB. Future availability under the credit facility is dependent on several factors including the available borrowing base and compliance with

future covenant requirements.
We believe our existing cash and cash equivalents and investment balances will be sufficient to meet our working capital requirements for at least the next twelve months from the issuance of our financial statements. However, we have been negatively impacted by rapid changes in the ad tech industry, including demand by ad tech buyers for more efficiency and lower costs, changes in bidding technologies, and increased competition. In response to these challenges, we made significant reductions in fees charged to buyers during 2017 and in November 2017 eliminated buyer fees altogether. As a result, our take rate decreased from 18.1% in the third quarter of 2017 to 11.8% for the first quarter of 2018, increasing slightly to 12.3% for the third quarter of 2018. In an effort to bring our costs into better alignment with reduced revenue, we have undertaken restructuring activities to reduce headcount and related operating costs, and have also reduced our capital expenditures, which may make execution against our strategic business

plans more difficult. Unless and until the we are able to compensate for the buyer fee reductions and reduced gross margins by continuing to increase advertising spending on our platform, increase seller fees, or sufficiently reduce costs, we may not be able to grow our business and may continue to operate at a loss, depleting our cash resources and liquidity. Our future capital requirements and the adequacy of available funds will depend on many factors, including those set forth in Part II, Item 1A: "Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2017 and in Part II, Item 1A of our subsequent Quarterly Reports on Form 10-Q.

Our ability to renew our existing credit facility, which matures in September 2020, or to enter into a new credit facility to replace or supplement the existing facility may be limited due to various factors, including the status of our business, global credit market conditions, and perceptions of our business or industry by sources of financing. In particular, it may be difficult to renew or replace our existing credit facility if we are not able to produce, or demonstrate a path to produce, positive cash flow. In addition, even if credit is available, lenders may seek more restrictive covenants and higher interest rates that may reduce our borrowing capacity, increase our costs, and reduce our operating flexibility.

In the future, we may attempt to raise additional capital through the sale of equity securities or through equity-linked or debt financing arrangements. 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 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.

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, 2018 (in thousands)	September 30, 2017
Cash flows provided by (used in) operating activities	$ (22,552)	$ 9,213
Cash flows provided by (used in) investing activities	28,844	(58,060)
Cash flows used in financing activities	(470)	(1,232)
Effects of exchange rate changes on cash, cash equivalents and restricted	(110)	186

cash				
Change in cash, cash equivalents and restricted cash	$	5,712	$	(49,893)

Operating Activities

Our cash flows from operating activities are primarily driven by revenues generated from advertising activity, offset by the cash costs of operations, and are significantly influenced by increases or decreases in receipts from buyers and related payments to sellers. 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 competitive nature 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, 2018, net cash used in operating activities was $22.6 million compared to net cash provided by operating activities of $9.2 million for the nine months ended September 30, 2017. Our operating activities included our net losses of $59.6 million and $131.0 million for the nine months ended September 30, 2018 and 2017, respectively, which were offset by non-cash adjustments of $39.2 million and $133.1 million, respectively. Non-cash adjustments for the nine months ended September 30, 2017 included a $90.3 million goodwill impairment charge. In the first nine months of 2018, net changes in our working capital increased cash used in operating activities by $2.1 million. Net cash provided by operating activities for the first nine months of 2017 was also increased by net changes in our working capital of $7.1 million. The net changes in working capital for both periods are primarily due to the timing of cash receipts from buyers and the timing of payments to sellers.

We believe that cash flows from operations will continue to be negatively impacted by our ongoing net losses.

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, changes to headcount, and the development cycles of our internal use software. As we execute on our strategy to be a high volume, low cost advertising exchange, we are developing solutions to manage the growth of our digital advertising inventory volume more efficiently. As a result of these efforts, we anticipate investment in property and equipment related to that inventory volume to decline compared to 2017. We anticipate investment in internal use software development to remain relatively consistent with past years' investment levels as we continue to innovate new solutions on our platform. 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, 2018 our investing activities provided net cash of $28.8 million compared to net cash used in investing activities of $58.1 million for the nine months ended September 30, 2017. For the nine months ended September 30, 2018 and 2017, we had net maturities of investments in available-for-sale securities of $31.7 million and $1.2 million, respectively. The nine months ended September 30, 2018 also included cash inflows of $9.2 million from sales of our available-for-sale securities. These cash inflows were offset by purchases of property and equipment of $5.5 million and $14.6 million during the nine months ended September 30, 2018 and 2017, respectively, and investments in our internally developed software of $6.6 million and $6.1 million, respectively.

Financing Activities

Our financing activities consisted of transactions related to the issuance of our common stock under our equity plans. For the nine months ended September 30, 2018 and 2017, we used net cash of $0.5 million and $1.2 million, respectively, for financing activities. Cash outflows from financing activities for the nine months ended September 30, 2018 and 2017 included payments of $0.7 million and $2.1 million, respectively, for income tax deposits paid in respect of vesting of stock-based compensation awards that were reimbursed by the award recipients through surrender of shares. Offsetting these outflows were cash inflows of $0.1 million and $0.4 million from the issuance of common stock under the employee stock purchase plan for the nine months ended September 30, 2018 and 2017, respectively.

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 for other contractually narrow or limited purposes. We did not have any other off-balance sheet arrangements at September 30, 2018 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, 2018, expected future commitments relating to operating leases were $16.8 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 $0.6 million for the nine months ended September 30, 2018.

There were no significant changes to our unrecognized tax benefits in the nine months ended September 30, 2018 and we do not expect to have any significant changes to unrecognized tax benefits through December 31, 2018.

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, 2018.

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, 2017 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 transactions where we provide a platform for the purchase and sale of digital advertising inventory. Our advertising automation solution is a marketplace that includes sellers of inventory (providers of websites, mobile applications and other digital media properties, and their representatives) and buyers of inventory (including advertisers, agencies, agency trading desks, and demand-side platforms). 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 our automated advertising solution that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the digital advertising inventory managed on our platform. Digital advertising inventory is created when consumers access sellers’ content. Sellers provide digital advertising inventory to our platform in the form of advertising requests, or ad requests. When we receive ad requests from sellers, we send bid requests to buyers, which enable buyers to bid on sellers’ digital advertising inventory. Winning bids can create advertising, or paid impressions, for the seller to present to the consumer.

The total volume of spending between buyers and sellers on our platform is referred to as advertising spend. We keep a percentage of that advertising spend as a fee, and remit the remainder to the seller. The fee or “take rate” that we retain from the gross advertising spend on our platform is recognized as revenue. The fee earned on each transaction is based on the pre-existing agreement we have with the seller and the clearing price of the winning bid. We recognize revenue upon fulfillment of our performance obligation to a customer, which occurs at the point in time an ad renders and is counted as a paid impression, subject to a contract existing with the customer and a fixed or determinable transaction price. Performance obligations for all transactions are satisfied, and the corresponding revenue is recognized, at a distinct point in time; we have no arrangements with multiple performance obligations. We consider the following when determining if a contract exists (i) contract approval by all parties, (ii) identification of each party’s rights regarding the goods or services to be transferred, (iii) specified payment terms, (iv) commercial substance of the contract, and (v) collectability of substantially all of the consideration is probable.

We have determined that we do not act as the principal in the purchase and sale of digital advertising inventory because we are not the primary obligor and do not set prices agreed upon within the auction marketplace, and therefore we report revenue on a net basis. In periods prior to the second quarter of 2017, we reported revenue on a gross basis for revenue associated with our intent marketing solution, as we determined that we acted as the principal in the purchase and sale of digital advertising inventory. We ceased offering our intent marketing solution after the first quarter of 2017, after which time, all of our revenues have been recorded on a net basis.

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

This item is not required for a smaller reporting company.

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, 2018, 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, 2018 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, 2018. However, based on our knowledge as of September 30, 2018, 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 alleged 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 claimed 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 claimed damages including loss of revenue, interest, and costs. On October 11, 2018, we and Guardian mutually agreed to resolve our dispute and the High Court proceedings have been discontinued. Though the terms of the settlement agreement are confidential, the settlement is immaterial to us from a financial standpoint. However, if we face similar claims from other clients or as a preventative measure, we might decide to make changes to our business practices that could have a material impact on our financial position.

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, 2017 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 credit facility subjects us to operating restrictions and financial covenants that impose risk of default and may restrict our business and financing activities.

We have a $40.0 million credit facility with Silicon Valley Bank, currently subject to a $10.0 million reserve. Borrowings are secured by substantially all of our tangible personal property assets and all of our intangible assets are subject to a negative pledge in favor of Silicon Valley Bank. This credit facility is, and any replacement credit facility that we may secure will be, subject to certain covenants and borrowing conditions, including those related to financial ratios and liquidity. If we fail to perform in accordance with covenants or to satisfy conditions, we may not be able to make borrowings under the facility. The credit facility is, and any replacement credit facility that we may secure will be, also subject to restrictions that limit our ability, among other things, to:

- dispose of or sell our assets;
- make material changes in our business or management;
- acquire, consolidate or merge with other entities;
- incur additional indebtedness;
- create liens on our assets;
- pay dividends;
- make investments;
- enter into transactions with affiliates; and
- pay off or redeem subordinated indebtedness.

These covenants may restrict our ability to finance our operations and to pursue our business activities and strategies. Our ability to comply with these covenants may be affected by events beyond our control. If a default were to occur and not be waived, such default could cause, among other remedies, all of the outstanding indebtedness under our loan and security agreement to become immediately due and payable. In such an event, our liquid assets might not be sufficient to meet our repayment obligations, and we might be forced to liquidate collateral assets at unfavorable prices or our assets may be foreclosed upon and sold at unfavorable valuations.

Our ability to renew our existing credit facility, which matures in September 2020, or to enter into a new credit facility to replace or supplement the existing facility may be limited due to various factors, including the status of our business, global credit market conditions, and perceptions of our business or industry by sources of financing. In particular, it may be difficult to renew or replace our existing credit facility if we are not able to produce, or demonstrate a path to produce, positive cash flow. In addition, if credit is available, lenders may seek more restrictive covenants and higher interest rates that may reduce our borrowing capacity, increase our costs, and reduce our operating flexibility.

If we make borrowings under the facility and do not have or are unable to generate sufficient cash available to repay our debt obligations when they become due and payable, either upon maturity or in the event of a default, we may not be able to obtain additional debt or equity financing on favorable terms, if at all. Our inability to obtain financing may negatively impact our ability to operate and continue our business as a going concern.

The California Consumer Privacy Act of 2018 could create additional costs, subject us to enforcement actions, or cause us to change our technology solution or business model, any of which may have an adverse effect on the demand for our solution.

On June 28, 2018, California passed a privacy law in the California Consumer Privacy Act of 2018 ("CCPA"), which grants California residents certain rights with respect to their personal information. The CCPA is the most comprehensive data privacy regulation to date in the United States, and could be the precursor to other similar legislation in other states or at the federal level. The CCPA expands the definition of personal information, which captures the types of data that we collect, such as device identifiers and IP addresses. Under the CCPA, businesses are required to grant expansive access, deletion and portability rights to consumers in the United States, similar to those provided under the European General Data Protection Regulation. The law may also impose burdensome storage and compliance obligations on publishers and ad tech companies. Interpretation of the requirements remains unclear due to the recent passage of the regulation. The law is expected to take effect in 2020. The CCPA may precipitate additional privacy regulation by federal, state and local governments, which may increase our compliance costs and strain our technical capabilities, and which may conflict with each other. If we are unable to comply with the CCPA or other related legislation in the future, we may be subject to regulatory or private investigations, and if we are unable to use information for targeted advertising as we have in the past, our business could be materially affected.

Legal and compliance uncertainties resulting from effectiveness of the European General Data Protection Regulation on May 25, 2018 may result in substantial risk to our ad spend and revenue.

The General Data Protection Regulation, or GDPR, which became effective on May 25, 2018, adds significant new regulatory requirements that are applicable to us as well as our clients and competitors. As is frequently the case with transformative new laws, some critical elements of the GDPR are still unclear, and consistent regulatory guidance has yet to be developed, or for established industry compliance practices to emerge. Compliance stakes are high because penalties for violation of the law can reach up to the greater of 20 million Euros or 4% of total worldwide annual turnover (revenue). Further, compliance is complicated by the potential for differing interpretation and enforcement of the GDPR by regulators in each of the EEA’s (European Economic Area) member states. The reach of the GDPR extends well beyond ad tech, but some observers believe that ad tech may become a special focus of enforcement due to the concerns many European privacy regulators have expressed about digital behavioral advertising. If we are subjected to regulatory investigations or private claims, we could face significant fines and losses, and our financial position could be materially affected.

Behavioral advertising requires end-user information, and an inability to get that information could affect our business.

The more informed advertising is about its audience, the more valuable it is. Skywriting and highway billboards are examples of generalized advertising, casting a broad net across an undifferentiated audience in hopes of capturing a few of the viewers the advertiser hopes to reach. “Contextual” advertising attempts to reach audiences based upon inferences about their interests drawn by, for example, what websites they visit or apps they use. Programmatic advertising, facilitated by the ad tech ecosystem, enables more precise audience targeting, known as “behavioral” advertising. Publishers package information about their end users (e.g., geolocation data, browsing history) when requesting ads for the sites and apps visited by those end users, and buyers of that inventory use the end-user data provided by the publishers, together with any additional information they may have about the end users, to target their advertisements with greater precision than is possible without reliance upon end users’ attributes. This behavioral advertising is more effective and valuable for buyers than general or contextual advertising, resulting in more revenue for publishers. A key feature of the GDPR is that it treats much of the end-user information that is critical to programmatic digital advertising as “personal data” and therefore subject to significant conditions and restrictions on its collection and use. In addition, browsers and device manufacturers, such as Apple, Safari and Firefox, are limiting certain third- and first-party cookies, and may, in the future, limit certain user device information. This information is critical to the ad tech ecosystem, which uses it to help identify and track users. Without this end-user information, the value of programmatic advertising inventory diminishes, resulting in lower demand and prices, and potentially less ad spend and revenue for us and other industry participants.

The GDPR imposes new requirements for end user consent and legal basis for data processing that are not yet well understood.

End-user consent to data collection through device access has been required for some time under the European Union Privacy and Electronic Communications Directive (Directive 2002/58/EC), commonly referred to as the “ePrivacy Directive,” but the GDPR has added complexity and risk. End-user consent is difficult for ad tech intermediaries like us to obtain because we do not have direct relationships with such end users, so we have historically relied upon publishers to obtain consent for our technology under the ePrivacy Directive, and we must continue to rely upon publishers to obtain consent under the GDPR. However, while simple click-through cookie banners on EU-based digital media properties have been the norm for ePrivacy Directive compliance, it may become more challenging to obtain valid consent from European end users because the GDPR may be interpreted to impose additional requirements applicable to end-user consents generally. Unfortunately, it is not yet clear what may be needed to satisfy the requirements regarding consent. Without clarity on this point, different participants in the ad tech ecosystem may take different approaches to end-user consent, disrupting the coordination among buyers, sellers, and intermediaries required to process transactions efficiently.

The GDPR sets forth six alternative legal bases for processing personal data, but only two are relevant to ad tech: consent by the data subject and "legitimate interests," which means that "processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject." We generally rely upon legitimate interests because we lack the direct relationships to users that would be required to satisfy the requirements the GDPR imposes to satisfy the consent requirements for processing of personal data. Some EU regulators or courts may conclude that the processing of personal data for the purposes of behavioral advertising does not satisfy the legitimate interests of the controller, or that such interests do not outweigh the privacy rights of end users, even with respect to ad tech parties that only collect device-identifiable information. Unavailability of this basis for processing end users' personal data would require us to obtain end-user consent for processing under the GDPR, which may not be possible for us, or other ad tech intermediaries, without changes to the ad tech business that would be difficult, time-consuming, expensive, and perhaps unattainable.

Google currently relies on end-user consent as its basis for processing personal data, and has required its publishers and ad tech partners to obtain such end-user consent on behalf of Google. We are reliant upon third parties to obtain consent for Google in accordance with their policies. Consent is relatively easier for Google to obtain because of its direct relationships with end users and importance to publishers, but its practices may not translate well across the industry. If publishers are unable to obtain this consent our revenue and advertising spend could decline.

Legal uncertainty and industry unpreparedness may mean substantial disruption and inefficiency, demand constraints, and reduced inventory supply and value.

In this context, various things can disrupt standard transaction patterns, resulting in reduced inventory availability or ad spend and consequently less revenue for us and other ad tech providers.

Some publishers may be unprepared to comply with evolving regulatory guidance under the GDPR, and therefore may remove personal data from their inventory before passing it into the bid stream, at least temporarily. This will lower their inventory on the value scale from behavioral to contextual advertising, resulting in loss of ad spend and revenue for us.

The GDPR gives end users expanded legal rights, and the onset of the GDPR has been accompanied by substantial publicity and may continue to spawn various end-user advocacy groups and businesses focused upon helping users understand and exercise those rights. Furthermore, whereas in the past, end-user consent under the EU ePrivacy Directive was generally obtainable through a simple click-through banner, acceptable methods of obtaining end-user consent under the GDPR may be substantially less user-friendly, and if the consent mechanism is too cumbersome, end users are more likely to decline. These factors may result in lower levels of users' consent for accessing of their devices and processing of their personal data. Without that consent, our publishers may not attempt to monetize inventory associated with such end users at all, or pass that inventory to us without personal data, again lowering that inventory on the value scale from behavioral to contextual advertising.

Even well-prepared publishers and buyers will be confronted with difficult choices and administrative and technical hurdles to implement their GDPR compliance programs and integrate with multiple other parties in the ecosystem. IAB Europe has provided a user transparency and consent tool that can be adapted by “consent management providers” (CMPs) and implemented by publishers. There is limited guidance regarding proper implementation of the tool and some publishers and ad tech providers may not be using the tool or interpreting consent signals correctly. The IAB Europe tool continues to evolve, so some inefficiency can be expected. It is not clear whether Google will participate in the IAB Europe tool or if they will rely on a proprietary consent tool. If Google chooses not to participate in the IAB Europe tool, broad adoption of the IAB Europe tool by publishers may be limited. To the extent another tool emerges and publishers need to utilize multiple consent tools, this may be cumbersome and deleterious to end-user experience and consent levels. It is also not yet clear whether any consent tool will survive scrutiny and be accepted by regulators as appropriate consent mechanisms. Further, compliance program design and implementation will be an ongoing process as understanding of the new law increases and industry compliance standards evolve. The resulting process friction could result in substantial inefficiency and loss of inventory and demand, as well as increased burdens upon our organization as we seek to assist clients and adapt our own technology and processes as necessary to comply with the law and adapt to industry practice.

Buyers of digital advertising inventory need to access end users’ devices to serve advertisements and collect information, such as end-user interaction with ad content and frequency tracking. Buyers need end-user consent for this access. Large integrated purchasers of ad inventory like Google can obtain consent for the device access they need directly from their end users. Other buyers must rely upon the publishers supplying inventory to secure that consent. Some buyers may continue to rely upon publishers to obtain this consent without independent verification, consistent with historical practice under the ePrivacy Directive, but other buyers may not be willing to accept or bid on inventory that is not accompanied by consent signals documenting specific user consent. Because these signals must be deciphered by multiple parties in the ad tech ecosystem, most publishers will rely upon either an industry supported consent tool (e.g., the IAB Europe tool) or a tool created by a large company with direct relationship with end users (e.g., Google). As noted above, consent tool adoption remains in the early stages and it is unclear whether the market will settle on one standard. Some buyers may decline to bid on impressions from the EEA due to ambiguity about their rights, or may only bid on impressions that are stripped of personal data and converted to contextual advertising. This will have the effect of reducing demand for and value of EEA impressions on our platform.

The uncertain regulatory environment caused by the GDPR may benefit large, integrated competitors like Google and Facebook, which have greater compliance resources and can take advantage of their direct relationships with end users to secure consents from end users that we and other intermediaries without direct user relationships are less able to obtain under current industry conditions.

Near-term declines in EU-based ad spend and revenue remain possible, and long-term adverse effects are also possible.

It is possible that the value of digital advertising in the EU, and consequently our ad spend and revenue, may be permanently impaired if EU courts and regulators interpret or enforce the GDPR in ways that have the effect of limiting behavioral advertising or that prohibit critical ad tech industry practices.

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. There were no common stock repurchases during the quarter ended September 30, 2018.

Item 5. Other Information

On September 26, 2018, we amended and restated our loan and security agreement with SVB (the "Loan Agreement"), which was scheduled to expire on September 27, 2018. The Loan Agreement provides a senior secured revolving credit facility of up to $40.0 million with a maturity date of September 26, 2020. The amount available for borrowing as of September 30, 2018 is $30.0 million due to a $10.0 million reserve that will be released if we maintain positive Adjusted EBITDA for any trailing twelve-month period.

An unused revolver fee in the amount of 0.15% per annum of the average unused portion of the revolver line is charged and is payable monthly in arrears. We may elect for advances to bear interest calculated by reference to prime or LIBOR. If we elect LIBOR, amounts outstanding under the amended credit facility bear interest at a rate per annum equal to LIBOR plus 2.50% if a streamline period applies or LIBOR plus 4.00% if a streamline period does not apply. If we elect prime, advances bear interest at a rate of prime plus 0.50% if a streamline period applies or prime plus 2.00% if a streamline period does not apply. A streamline period is any period during which an event of default does not exist and our Adjusted Quick Ratio (as defined in the Loan Agreement) is at least 1.05 for each day in the preceding month.

The Loan Agreement is collateralized by security interests in substantially all of our assets. Subject to certain exceptions, the Loan Agreement restricts our ability to, among other things, pay dividends, sell assets, make changes to the nature of the business, engage in mergers or acquisitions, incur, assume or permit to exist, additional indebtedness and guarantees, create or permit to exist, liens, make distributions or redeem or repurchase capital stock, or make other investments, engage in transactions with affiliates, make payments with respect to subordinated debt, and enter into certain transactions without the consent of the financial institution. If a streamline period is not in effect, we are required to maintain a lockbox arrangement where customer payments received in the lockbox will immediately reduce the amounts outstanding on the credit facility.

The Loan Agreement requires us to comply with financial covenants, including a minimum Adjusted Quick Ratio and the achievement of certain Adjusted EBITDA targets. On a monthly basis, or quarterly if there were no advances outstanding during the calendar quarter, we are required to maintain a minimum Adjusted Quick Ratio of: (i) 1.00 if the trailing six month adjusted EBITDA is $0 or less, or (ii) 0.90 if the trailing six month adjusted EBITDA is greater than $0. If our Adjusted Quick Ratio is 1.05 or greater, a streamline period applies. As of September 30, 2018, our Adjusted Quick Ratio was 1.2, which is in compliance with the covenant requirement and is higher than the minimum Adjusted Quick Ratio required to qualify for a streamline period. We must also maintain the following trailing twelve month Adjusted EBITDA targets as of the end of each quarter as follows: (1) September 30, 2018 through June 30, 2019 Adjusted EBITDA must be within 20% of the Adjusted EBITDA projections that were delivered to Silicon Valley Bank; (2) September 30, 2019 Adjusted EBITDA of $1 or greater; and (3) December 31, 2019 and thereafter, Adjusted EBITDA of $5.0 million or greater.

The Loan Agreement also 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 Loan Agreement). 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.

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*	Amended and Restated Loan and Security Agreement, dated as of September 26, 2018, by and among Silicon Valley Bank, the Registrant, Rubicon Project Hopper, Inc., and Rubicon Project Bell, Inc.
10.2*	Second Amendment to Stock Pledge Agreement, dated as of September 26, 2018, by and between Silicon

	Valley Bank and the Registrant.
10.3*	The Rubicon Project, Inc. 2014 Employee Stock Purchase Plan, as amended and restated on July 26, 2018
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.def *	XBRL Taxonomy Definition Linkbase Document
101.pre *	

	XBRL Taxonomy Presentation Linkbase Document
101.lab *	XBRL Taxonomy Label Linkbase Document
101.cal *	XBRL Taxonomy Calculation Linkbase Document
101.ins *	Instance Document- the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document

* Filed herewith

(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 7, 2018

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