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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ____________ to ____________

Commission File Number: 001-36384

THE RUBICON PROJECT, INC.
(Exact name of registrant as specified in its charter)

Delaware	**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

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Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value $0.00001 per share	**RUBI**	**New York Stock Exchange**

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

Indicate by check mark whether the registrant has submitted electronically 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). ☒ Yes ☐ No

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

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☒
		Emerging growth company	☒

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

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

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

Class	Outstanding as of October 31, 2019
Common Stock, $0.00001 par value	**53,071,171**

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, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 85,122	$ 80,452
Marketable securities	—	7,524
Accounts receivable, net	172,284	205,683
Prepaid expenses and other current assets	5,773	6,882
TOTAL CURRENT ASSETS	263,179	300,541
Property and equipment, net	24,238	33,487
Right-of-use lease asset	22,720	—
Internal use software development costs, net	15,189	14,570
Intangible assets, net	7,870	10,174
Other assets, non-current	2,125	1,240
TOTAL ASSETS	$ 335,321	$ 360,012
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 207,033	$ 239,678
Lease liabilities, current	6,993	—
Other current liabilities	498	1,304
TOTAL CURRENT LIABILITIES	214,524	240,982
Lease liabilities, non-current	16,495	—
Other liabilities, non-current	179	1,017
TOTAL LIABILITIES	231,198	241,999
Commitments and contingencies (Note 10)		
STOCKHOLDERS' EQUITY		
Preferred stock, $0.00001 par value, 10,000 shares authorized at September 30, 2019 and December 31, 2018; 0 shares issued and outstanding at September 30, 2019 and December 31, 2018	—	—
Common stock, $0.00001 par value; 500,000 shares authorized at September 30, 2019 and December 31, 2018; 53,073 and 51,159 shares issued and outstanding at September 30, 2019 and December 31, 2018, respectively	1	1
Additional paid-in capital	447,314	433,877
Accumulated other comprehensive loss	(585)	(259)
Accumulated deficit	(342,607)	(315,606)
TOTAL STOCKHOLDERS' EQUITY	104,123	118,013
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 335,321	$ 360,012

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

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

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Revenue	$ 37,642	$ 29,729	$ 107,928	$ 83,253
Expenses:				
Cost of revenue	13,869	14,687	44,070	44,514
Sales and marketing	11,040	10,654	33,151	34,046
Technology and development	10,293	9,299	29,848	29,038
General and administrative	9,121	9,355	29,428	33,340
Restructuring and other exit costs	—	—	—	3,440
Total expenses	44,323	43,995	136,497	144,378
Loss from operations	(6,681)	(14,266)	(28,569)	(61,125)
Other (income) expense:				
Interest income, net	(218)	(232)	(625)	(777)
Other income	(48)	(206)	(236)	(626)
Foreign exchange gain, net	(296)	(120)	(138)	(363)
Total other income, net	(562)	(558)	(999)	(1,766)
Loss before income taxes	(6,119)	(13,708)	(27,570)	(59,359)
Provision (benefit) for income taxes	55	84	(569)	233
Net loss	$ (6,174)	$ (13,792)	$ (27,001)	$ (59,592)
Net loss per share:				
Basic and Diluted	$ (0.12)	$ (0.27)	$ (0.52)	$ (1.19)
Weighted average shares used to compute net loss per share:				
Basic and Diluted	53,023	50,513	52,324	50,095

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, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Net loss	$ (6,174)	$ (13,792)	$ (27,001)	$ (59,592)
Other comprehensive income (loss):				
Unrealized gain on investments	—	9	2	15
Foreign currency translation adjustments	(292)	(99)	(328)	(223)
Other comprehensive loss	(292)	(90)	(326)	(208)
Comprehensive loss	$ (6,466)	$ (13,882)	$ (27,327)	$ (59,800)

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				
Balance at December 31, 2017	50,239	$ —	$ 418,354	$ 41	$ (253,784)	$ 164,611
Exercise of common stock options	9	—	6	—	—	6
Issuance of common stock related to RSU vesting	51	—	—	—	—	—
Shares withheld related to net share settlement	(19)	—	(40)	—	—	(40)
Stock-based compensation	—	—	4,689	—	—	4,689
Other comprehensive income	—	—	—	204	—	204
Net loss	—	—	—	—	(27,816)	(27,816)
Balance at March 31, 2018	50,280	—	423,009	245	(281,600)	141,654
Exercise of common stock options	40	—	39	—	—	39
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	779	1	—	—	—	1
Shares withheld related to net share settlement	(282)	—	(618)	—	—	(618)
Stock-based compensation	—	—	4,751	—	—	4,751
Other comprehensive loss	—	—	—	(322)	—	(322)
Net loss	—	—	—	—	(17,984)	(17,984)
Balance at June 30, 2018	50,750	1	427,324	(77)	(299,584)	127,664
Exercise of common stock options	1	—	—	—	—	—
Stock-based compensation	—	—	3,970	—	—	3,970
Other comprehensive loss	—	—	—	(90)	—	(90)
Net loss	—	—	—	—	(13,792)	(13,792)
Balance at September 30, 2018	50,751	$ 1	$ 431,294	$ (167)	$ (313,376)	$ 117,752

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2018	51,159	$ 1	$ 433,877	$ (259)	$ (315,606)	$ 118,013
Exercise of common stock options	76	—	251	—	—	251
Restricted stock awards, net	(182)	—	—	—	—	—
Issuance of common stock related to RSU vesting	1,171	—	—	—	—	—
Shares withheld related to net share settlement	(459)	—	(1,835)	—	—	(1,835)
Stock-based compensation	—	—	4,514	—	—	4,514
Other comprehensive income	—	—	—	94	—	94
Net loss	—	—	—	—	(12,546)	(12,546)
Balance at March 31, 2019	51,765	1	436,807	(165)	(328,152)	108,491
Exercise of common stock options	79	—	132	—	—	132
Restricted stock awards, net	—	—	—	—	—	—
Issuance of common stock related to employee stock purchase plan	118	—	477	—	—	477
Issuance of common stock related to RSU vesting	1,022	—	—	—	—	—
Shares withheld related to net share settlement	—	—	(12)	—	—	(12)
Stock-based compensation	—	—	4,949	—	—	4,949
Other comprehensive loss	—	—	—	(128)	—	(128)
Net loss	—	—	—	—	(8,281)	(8,281)
Balance at June 30, 2019	52,984	1	442,353	(293)	(336,433)	105,628
Exercise of common stock options	83	—	146	—	—	146
Issuance of common stock related to RSU vesting	6	—	—	—	—	—
Stock-based compensation	—	—	4,815	—	—	4,815
Other comprehensive loss	—	—	—	(292)	—	(292)
Net loss	—	—	—	—	(6,174)	(6,174)
Balance at September 30, 2019	53,073	$ 1	$ 447,314	$ (585)	$ (342,607)	$ 104,123

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, 2019	September 30, 2018
OPERATING ACTIVITIES:		
Net loss	$ (27,001)	$ (59,592)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	24,841	26,355
Stock-based compensation	13,877	13,016
Loss on disposal of property and equipment	92	149
Provision for doubtful accounts	897	217
Accretion of available-for-sale securities	24	(374)
Non-cash lease expense	(469)	—
Unrealized foreign currency (gains) losses, net	(391)	(206)
Deferred income taxes	(748)	—
Changes in operating assets and liabilities:		
Accounts receivable	32,149	10,318
Prepaid expenses and other assets	672	2,919
Accounts payable and accrued expenses	(34,018)	(14,415)
Other liabilities	(117)	(939)
Net cash provided by (used in) operating activities	9,808	(22,552)
INVESTING ACTIVITIES:		
Purchases of property and equipment	(5,605)	(5,474)
Capitalized internal use software development costs	(6,000)	(6,569)
Investments in available-for-sale securities	—	(23,991)
Maturities of available-for-sale securities	7,500	55,650
Sales of available-for-sale securities	—	9,228
Net cash (used in) provided by investing activities	(4,105)	28,844
FINANCING ACTIVITIES:		
Proceeds from exercise of stock options	529	45
Proceeds from issuance of common stock under employee stock purchase plan	477	143
Taxes paid related to net share settlement	(1,847)	(658)
Net cash used in financing activities	(841)	(470)
EFFECT OF EXCHANGE RATE CHANGES ON CASH, CASH EQUIVALENTS AND RESTRICTED CASH	(192)	(110)
CHANGE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	4,670	5,712
CASH, CASH EQUIVALENTS AND RESTRICTED CASH — Beginning of period	80,452	76,642
CASH, CASH EQUIVALENTS AND RESTRICTED CASH — End of period	$ 85,122	$ 82,354
SUPPLEMENTAL DISCLOSURES OF OTHER CASH FLOW INFORMATION:		
Cash paid for income taxes	$ 300	$ 272
Cash paid for interest	$ 46	$ 46
Capitalized assets financed by accounts payable and accrued expenses	$ 2,005	$ 3
Capitalized stock-based compensation	$ 401	$ 394
Operating lease right-of-use assets obtained in exchange for new operating lease liabilities	$ 13,074	$ —

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 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, and demand side platforms, or DSPs, to buy digital advertising inventory; and a marketplace over which such transactions are executed. In the second quarter of 2019, the Company announced the beta program for Demand Manager, which helps sellers effectively monetize their advertising inventory by making it easier to deploy, configure, and optimize Prebid-based header bidding solutions. Prebid is a free and open source suite of software products designed by advertising community developers to enable publishers to implement header bidding on their websites and from within their apps. 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 methods, 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, which includes (i) direct sale of premium inventory, which the Company refers to as private marketplace, or PMP, and (ii) open auction bidding, which the Company refers to as open marketplace, or 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 operates in the rapidly changing advertising industry and has faced demands by ad tech buyers for more efficiency and lower costs, changes in bidding technologies, and increased competition. The Company has adjusted its pricing model, which has reduced margins, and has lowered its expense structure to address these changes in the industry, resulting in net operating losses. The Company continues to incur net operating losses, despite having increased revenues and reduced costs. The Company must continue to increase revenues and/or manage costs in order to compensate for reduced margins, or 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, 2019 are not necessarily indicative of the results that may be expected for any future interim period, the year ending December 31, 2019, or for any future year.

The condensed consolidated balance sheet at December 31, 2018 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, 2018 included in its 2018 Annual Report on Form 10-K.

The Company adopted Accounting Standards Codification Topic 842 ("ASC 842")—*Leases* on January 1, 2019 using a modified retrospective approach. The adoption of this standard impacted only the financial statements included as of September 30, 2019 and for the three and nine months ended September 30, 2019. See below for additional information regarding the Company's adoption of ASC 842. Aside from the adoption of ASC 842, 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, 2018 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 ASC 842

On January 1, 2019, the Company adopted ASC 842, which requires the recognition of the right-of-use assets, or ROU assets, and related lease liabilities on the balance sheet using a modified retrospective approach. The consolidated financial statements related to periods prior to January 1, 2019 were not restated, and continue to be reported under ASC Topic 840—*Leases* ("ASC 840"), which did not require the recognition of operating lease liabilities on the balance sheet. As a result, the consolidated financial statements related to periods prior to January 1, 2019 are not entirely comparative with current and future periods. As permitted under ASC 842, the Company elected several practical expedients that permit the Company to not reassess (1) whether existing contracts are or contain a lease, (2) the classification of existing leases, and (3) whether previously capitalized costs continue to qualify as initial indirect costs. In addition, the Company has elected not to recognize short-term leases on our balance sheet, nor separate lease and non-lease components for our data center leases. In addition, we utilized the portfolio approach to group leases with similar characteristics and did not use hindsight to determine lease term.

In addition to the leases previously reported under ASC 840, the Company also reviewed its data center agreements to identify non-lease components that should not be included in the lease liability and lease expense under ASC 842. Certain fixed non-lease components of data center leases, primarily fixed minimum power commitments, have been included in the lease liability and ROU asset as the Company has elected the practical expedient for its data centers to not separate the lease and non-lease components; however, variable components have not been included. For identified leases, the Company used its incremental borrowing rate to discount the related future payment obligations as of January 1, 2019 to determine its lease liability as of adoption. As of the adoption date, the Company recognized a lease liability of $15.6 million and a corresponding ROU asset of $14.3 million; there was no equity impact from the adoption. The difference between the lease liability and the ROU asset primarily represents the existing deferred rent liabilities balances before adoption, resulting from historical straight-lining of operating leases, which was effectively reclassified upon adoption to reduce the measurement of the ROU asset.

The Company records rent expense for operating leases, including leases of office locations, data centers, and equipment, on a straight-line basis over the lease term. The straight-line calculation of rent expense includes rent escalations on certain leases, as well as lease incentives provided by the landlords, including payments for leasehold improvements and rent-free periods. The Company begins recognition of rent expense on the commencement date, which is generally the date that the asset is made available for use. The lease liability is included in lease liabilities, current and lease liabilities, non-current within the condensed consolidated balance sheet, which are reduced as lease related payments are made. The ROU asset is amortized on a periodic basis over the expected term of the lease. See Note 11 for additional information.

Recent Accounting Pronouncements

Under the Jumpstart Our Business Startups Act, or the JOBS Act, the Company meets the definition of an emerging growth company through the end of 2019. 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 March 2019, the Financial Accounting Standards Board issued ASU 2019-01—*Leases (Topic 842): Codification Improvements* ("ASU 2019-01"), which clarifies certain topics around lease guidance. One of the provisions of ASU 2019-01 pertains to the Company as it updates existing guidance by explicitly allowing an exception to transition disclosures typically required, while adopting ASC 842. Under this guidance, entities that have adopted ASC 842 are not required to provide identical disclosures for the comparative previous year period in the year of adoption. ASU 2019-01 is required to be adopted concurrently with the adoption of ASC 842, and as such, the Company adopted ASU 2019-01 during the first quarter of 2019.

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, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(in thousands, except per share data)			
Basic and Diluted EPS:				
Net loss	$ (6,174)	$ (13,792)	$ (27,001)	$ (59,592)
Weighted-average common shares outstanding	53,029	50,750	52,349	50,482
Weighted-average unvested restricted stock	(6)	(237)	(25)	(387)
Weighted-average common shares outstanding used to compute net loss per share	53,023	50,513	52,324	50,095
Basic and diluted net loss per share	$ (0.12)	$ (0.27)	$ (0.52)	$ (1.19)

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, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(in thousands)		(in thousands)	
Options to purchase common stock	1,078	162	732	72
Unvested restricted stock awards	—	208	16	232
Unvested restricted stock units	5,168	2,324	3,911	1,709
ESPP	48	94	35	64
Total shares excluded from net loss per share	6,294	2,788	4,694	2,077

Note 3—Revenues

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 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 client, 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 client 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.

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, 2019 and 2018:

	Three Months Ended				Nine Months Ended			
	September 30, 2019		September 30, 2018		September 30, 2019		September 30, 2018	
	(in thousands, except percentages)							
Channel:								
Desktop	$ 15,936	42%	$ 12,481	42%	$ 47,745	44%	$ 40,453	49%
Mobile	21,706	58	17,248	58	60,183	56	42,800	51
Total	$ 37,642	100%	$ 29,729	100%	$ 107,928	100%	$ 83,253	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, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(in thousands)		(in thousands)	
United States	$ 26,378	$ 19,731	$ 73,654	$ 54,201
International	11,264	9,998	34,274	29,052
Total	$ 37,642	$ 29,729	$ 107,928	$ 83,253

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, 2019:

	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	$ 13,447	$ 13,447	$ —	$ —

The table below sets forth a summary of financial instruments that are measured at fair value on a recurring basis at December 31, 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	$ 13,692	$ 13,692	$ —	$ —
U.S. Treasury, government and agency debt securities	$ 7,524	$ 7,524	$ —	$ —

At September 30, 2019 and December 31, 2018, cash equivalents of $13.4 million and $13.7 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. 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.

Note 5—Other Balance Sheet Amounts

Investments in marketable securities as of December 31, 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	$ 7,526	$ —	$ (2)	$ 7,524

The Company had no available-for-sale securities as of September 30, 2019. For the three and nine months ended September 30, 2019, there were no realized gains (losses) and there were no unrealized holding gains (losses) reclassified out of accumulated other comprehensive loss into the condensed consolidated statements of operations for the sale of available-for-sale investments. 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, 2019	December 31, 2018
	(in thousands)	
Accounts payable—seller	$ 195,467	$ 230,423
Accounts payable—trade	5,463	3,122
Accrued employee-related payables	6,103	6,133
Total	$ 207,033	$ 239,678

There was no restricted cash as of September 30, 2019 and December 31, 2018.

Note 6—Intangible Assets

The Company’s intangible assets as of September 30, 2019 and December 31, 2018 included the following:

	September 30, 2019	December 31, 2018
	(in thousands)	
Amortizable intangible assets:		
Developed technology	$ 16,878	$ 16,878
Non-compete agreements	—	690
Trademarks	20	20
Total identifiable intangible assets, gross	16,898	17,588
Accumulated amortization—intangible assets:		
Developed technology	(9,008)	(6,888)
Non-compete agreements	—	(506)
Trademarks	(20)	(20)
Total accumulated amortization—intangible assets	(9,028)	(7,414)
Total identifiable intangible assets, net	$ 7,870	$ 10,174

Amortization of intangible assets for the three months ended September 30, 2019 and 2018 was $0.7 million and $0.8 million, respectively, and $2.3 million and $2.4 million for the nine months ended September 30, 2019 and 2018, respectively. The estimated remaining amortization expense associated with the Company's intangible assets was as follows as of September 30, 2019:

Fiscal Year	Amount
	(in thousands)
Remaining 2019	$ 706
2020	2,826
2021	2,826
2022	1,512
2023	—
Thereafter	—
Total	$ 7,870

Note 7—Stock-Based Compensation

The Company’s equity incentive plans provide for the grant of equity awards, including non-statutory or incentive stock options, restricted stock 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, but with certain retention grants vesting 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 4,377,171 shares remained available for future grants at September 30, 2019 under the plans.

Stock Options

A summary of stock option activity for the nine months ended September 30, 2019 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, 2018	3,488	$	7.06			
Granted	1,184	$	4.98			
Exercised	(239)	$	2.21			
Expired	(36)	$	14.03			
Forfeited	(73)	$	2.62			
Outstanding at September 30, 2019	4,324	$	6.77	7.24 years	$	14,566
Exercisable at September 30, 2019	2,370	$	8.71	5.94 years	$	5,889

The total intrinsic values of options exercised during the nine months ended September 30, 2019 was $1.3 million. At September 30, 2019, the Company had unrecognized employee stock-based compensation expense relating to nonvested stock options of approximately $4.6 million, which is expected to be recognized over a weighted-average period of 2.75 years. The weighted-average grant date fair value per share of stock options granted during the nine months ended September 30, 2019 was $2.85. Total fair value of options vested during the nine months ended September 30, 2019 was $1.3 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, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Expected term (in years)	N/A	5.4	6.1	5.7
Risk-free interest rate	N/A	2.75%	2.51%	2.53%
Expected volatility	N/A	55%	60%	57%
Dividend yield	N/A	—%	—%	—%

Restricted Stock Awards

A summary of RSA activity for the nine months ended September 30, 2019 is as follows:

	Number of Shares (in thousands)		Weighted-Average Grant Date Fair Value
Nonvested shares of restricted stock awards outstanding at December 31, 2018	197	$	12.06
Granted	—	$	—
Canceled	(182)	$	11.92
Vested	(10)	$	13.84
Nonvested shares of restricted stock awards outstanding at September 30, 2019	5	$	13.49

The aggregate fair value of restricted stock with service conditions that vested during the nine months ended September 30, 2019 was $0.1 million. At September 30, 2019, the Company had unrecognized stock-based compensation expense for RSAs with service conditions of $37.9 thousand, which is expected to be recognized over a weighted-average period of 0.6 years.

Restricted Stock Units

A summary of RSU activity for the nine months ended September 30, 2019 is as follows:

	Number of Shares		Weighted-Average Grant Date Fair Value
	(in thousands)		
Nonvested restricted stock units outstanding at December 31, 2018	6,100	$	3.56
Granted	4,856	$	4.77
Canceled	(404)	$	3.74
Vested	(2,199)	$	3.39
Nonvested restricted stock units outstanding at September 30, 2019	8,353	$	4.30

The weighted-average grant date fair value per share of RSUs granted during the nine months ended September 30, 2019 was $4.77, which included 1.6 million RSUs that vest 50% annually over two years. The aggregate fair value of RSUs that vested during nine months ended September 30, 2019 was $11.3 million. At September 30, 2019, the intrinsic value of nonvested RSUs was $72.8 million. At September 30, 2019, the Company had unrecognized stock-based compensation expense relating to nonvested RSUs of approximately $26.5 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, 2019, the Company has reserved 2,001,256 shares of its common stock for issuance under the ESPP. The ESPP has an evergreen provision pursuant to which the share reserve will automatically increase on January 1st of each year in an amount equal to 1% of the total number of shares of capital stock outstanding on December 31st of the preceding calendar year, although the Company’s board of directors may provide for a lesser increase, or no increase, in any year.

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, 2019		September 30, 2018		September 30, 2019		September 30, 2018	
	(in thousands)				(in thousands)			
Cost of revenue	$	110	$	72	$	308	$	256
Sales and marketing		1,378		1,187		4,182		3,530
Technology and development		1,157		691		3,382		2,163
General and administrative		2,068		1,910		6,005		6,669
Restructuring and other exit costs		—		—		—		398
Total stock-based compensation expense	$	4,713	$	3,860	$	13,877	$	13,016

Note 8—Restructuring and Other Exit Costs

As part of its on-going efforts to control costs and create efficiencies, the Company undertook restructuring events in 2018 to streamline operations, prioritize resources for growth initiatives and increase profitability. Restructuring and other exit costs of $3.4 million were incurred during the nine months ended September 30, 2018 related to severance and one-time termination benefit costs. There were no restructuring charges incurred during the three months ended September 30, 2018.

The following table summarizes restructuring and other exit cost activity for the nine months ended September 30, 2018 (in thousands):

Accrued restructuring and other exit costs at January 1, 2018	$	—
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

As of December 31, 2018, the Company had $0.1 million accrued restructuring and other exit costs remaining. No restructuring and other exit costs were incurred during the three and nine months ended September 30, 2019, and all remaining accrued costs associated with the 2018 restructuring events were paid in the first quarter of 2019.

Note 9—Income Taxes

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

The Company recorded an income tax expense of $0.1 million and an income tax benefit of $0.6 million for the three and nine months ended September 30, 2019, respectively, and income tax expenses of $0.1 million and $0.2 million for the three and nine months ended September 30, 2018, respectively. The tax provision for the three and nine months ended September 30, 2019 is primarily the result of the release of a foreign valuation allowance resulting from a change to a cost plus arrangement for a foreign subsidiary, 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 a federal corporate rate reduction from 34% to 21%. For additional information and a discussion of the impact of the Tax Act on the Company, refer to Note 15 of the "Notes to Consolidated Financial Statements" within our Annual Report on Form 10-K for December 31, 2018.

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, 2019, 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.

Note 10—Commitments and Contingencies

Commitments

As of September 30, 2019 and December 31, 2018, the Company had $2.5 million and $2.9 million, respectively, of letters of credit associated with office leases available for borrowing, on which there were no outstanding borrowings as of either date. The Company also has operating lease agreements, discussed in more detail in Note 11.

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 routine 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, 2019. However, based on management's knowledge as of September 30, 2019, 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.

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 11—Lease Obligations

The Company adopted ASC 842 as of January 1, 2019. As part of the implementation, the Company recognized its lease liabilities, including the current and non-current portions, within its condensed consolidated balance sheet as of the adoption date, which represents the present value of the Company's obligation related to the estimated future lease payments. The Company also recognized a right-of-use asset, or ROU asset, which represents the right to use the leased asset over the period of the lease. The ROU asset was calculated as the lease liability less any asset or liability balances that existed at the time of adoption.

The lease term is generally specified in the lease agreement, however certain agreements provide for lease term extensions or early termination options. To determine the period for the estimated future lease payments, the Company evaluates whether it is reasonably certain that it will exercise the option at the commencement date and periodically thereafter. Certain data center lease agreements include one year extension options or month-to-month extension options, and one or more of these extensions have been assumed for each lease that the Company believes to be an integral part of our business in the near term. The lease terms of the Company's operating leases generally range from one year to ten years, and the weighted average remaining lease term of leases included in the lease liability is 6.28 years as of September 30, 2019.

To determine the estimated future lease payments, the Company reviews each of its lease agreements to identify the various payment components. For real estate and equipment leases, the Company includes only the actual lease components in its determination of future lease payments, and for its data center leases, includes both the fixed lease and non-lease components in the estimated future lease payments. This typically includes a fixed minimum power commitment that is included in the data center agreements, but it does not include any variable or usage-based additional charges. Once the estimated future lease payments are determined, the Company uses a discount rate to calculate the present value of the future lease payments. As of September 30, 2019, a weighted average discount rate of 4.73% has been applied to the remaining lease payments to calculate the lease liabilities included within the condensed consolidated balance sheet. This represents the incremental borrowing rate the Company would be subject to on borrowings from its available revolving debt agreement (See Note 12).

For the three and nine months ended September 30, 2019, the Company recognized $2.0 million and $5.7 million, respectively, of lease expense under ASC 842, which included operating lease expenses associated with leases included in the lease liability and ROU asset on the condensed consolidated balance sheet. In addition, for the three and nine months ended September 30, 2019, the Company recognized $0.1 million and $0.5 million, respectively, of lease expense related to short-term leases that are not included in the ROU asset or lease liability balances. For the three and nine months ended September 30, 2018, the Company recognized rental expenses of $3.2 million and $9.7 million, respectively, under ASC 840, which included expenses related to short-term leases, and also included certain non-lease components including variable capacity related expenses at the data centers. The Company also received rental income of $48.4 thousand and $0.2 million for real estate leases for which it subleases the property to a third party during the three months ended September 30, 2019 and 2018, respectively, and $0.2 million and $0.6 million for the nine months ended September 30, 2019 and 2018, respectively.

The maturity of the Company's lease liabilities were as follows (in thousands):

Fiscal Year		
Remaining 2019	$	1,932
2020		7,905
2021		4,348
2022		2,284
2023		1,968
Thereafter		8,491
Total lease payments (undiscounted)		26,928
Less: imputed interest		(3,440)
Lease liabilities—total (discounted)	$	23,488

In addition to the leases included in these condensed consolidated financial statements, the Company entered into a lease agreement for an office location in New Jersey during the first half of 2019 that has not yet commenced as of September 30, 2019. The Company anticipates the recognition of approximately $0.4 million additional lease liabilities related to the New Jersey lease when the property is made available to the Company for use, which is expected to occur in the fourth quarter of 2019.

Note 12—Debt

In September 2018, the Company amended and restated its loan and security agreement with Silicon Valley Bank ("SVB") (the "Loan Agreement"). 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 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 (a) LIBOR plus 2.50% if a streamline period applies or (b) LIBOR plus 4.00% if a streamline period does not apply. If the Company elects prime, advances bear interest at a rate of (a) prime plus 0.50% if a streamline period applies or (b) 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 clients' 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, 2019, the Company's Adjusted Quick Ratio was 1.15, 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, 2019, 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, 2019, 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.

Note 13—Subsequent Events

On October 21, 2019, the Company acquired RTK.io for cash consideration of $11 million. RTK.io is a provider of header bidding solutions that have much in common with the Company's Demand Manager product, including a foundation in Prebid, the advertising technology industry's open source framework. The Company plans to integrate the two solutions to extend its Demand Manager product portfolio and client base, and to add talented header bidding experts and Prebid developers to its team. The initial accounting for the acquisition is expected to be completed by December 31, 2019.

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 loss per share, profitability, net income (loss), Adjusted EBITDA, earnings per share, and cash flow; strategic objectives, including focus on header bidding, mobile, video, Demand Manager, and private marketplace opportunities; investments in our business; development of our technology; introduction of new offerings; the impact of transparency initiatives we may undertake; the impact of our 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; user reach; certain statements regarding future operational performance measures including ad requests, fill rate, paid impressions, average CPM, take rate, and advertising spend; benefits from supply path optimization; 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 continue to grow and to manage our 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 and aggregators of advertising inventory;*
- *our ability to maintain and grow a supply of advertising inventory from sellers and to fill the increased inventory;*
- *the effect on the advertising market and our business from difficult economic conditions or uncertainty;*
- *the freedom of buyers and sellers to direct their spending and inventory to competing sources of inventory and demand;*
- *our ability to cause buyers and sellers to use our solution to purchase and sell higher value advertising and to expand the use of our solution by buyers and sellers utilizing evolving digital media platforms, including connected television, or CTV;*
- *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 other platforms and from display to video formats and the introduction and market acceptance of Demand Manager;*
- *uncertainty of our estimates and expectations associated with new offerings, including header bidding, private marketplace, mobile, video, Demand Manager, and traffic shaping;*
- *lower 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 and increasing our fill rate;*
- *our vulnerability to the depletion of our cash resources as we incur additional investments in technology required to support the increased volume of transactions on our exchange and development of new offerings;*
- *our ability to support our growth objectives with reduced resources from our cost reduction initiatives;*
- *our ability to raise additional capital if needed and/or renew our working capital line of credit;*
- *our limited operating history and history of losses;*
- *our ability to continue to expand into new geographic markets and grow our market share in existing markets;*
- *our ability to adapt effectively to shifts in digital advertising;*
- *increased prevalence of ad-blocking or cookie-blocking technologies and the slow adoption of common identifiers;*
- *the slowing growth rate of desktop display advertising;*
- *the growing percentage of online and mobile advertising spending captured by owned and operated sites (such as Facebook, Google, and Amazon);*

- *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;*
- *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 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, 2018 and subsequent Quarterly Reports on Form 10-Q. These forward-looking statements represent our estimates and assumptions only as of the date of the report in which they are included. 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 methods, 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, 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, desktop, and connected TV ("CTV"), 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 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 also refer to revenue divided by advertising spend as our take rate.

Industry Trends and Trends in Our Business

Market Opportunities

The programmatic digital advertising market continues to experience growth. In October 2019, MAGNA estimated that the global programmatic market (excluding search and social) will grow from $44 billion in 2019 to $75 billion by 2023, which represents a 14% compound annual growth rate over that period. The expansion of the growth is continuously driven by the market need for automated buying and selling of advertising inventory, through various channels and across all formats.

An ongoing trend in the digital advertising industry is automating inventory transactions 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 a $26 billion global market in 2019 that is expected to increase to $56 billion by 2023, producing a compound annual growth rate of 22%. Consistent with industry trends, our mobile business is growing faster than desktop. Our mobile revenue increased $17.4 million, or 41%, for the nine months ended September 30, 2019, compared to the nine months ended September 30, 2018, while our desktop revenue increased 18% during the same period. 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, but our mobile application has become the growth driver behind our mobile business and has shown growth rates in excess of industry projections. Revenue from mobile applications is approximately half of our mobile business.

Another important trend in the digital advertising industry is automating inventory transactions across all formats. We enable an omni-channel approach to expand beyond traditional display advertising and have observed growth trends in emerging formats like video and audio. According to MAGNA estimates, video advertising was $25 billion in 2019 and is projected to increase to $57 billion in 2023, with a compound annual growth rate of 22%. We expect video to be a meaningful driver of our future growth with a longer-term opportunity in connected television, or CTV, advertising as more linear TV budgets shift to programmatic.

The growth of programmatic 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. 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, Google, and increasingly Amazon.

Macro Trends Impacting 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 2019-2023 period. This results from the market shift to mobile channels and other emerging formats noted above. These market factors still present long-term growth opportunities as we pursue spend consolidation on our platform; however, in the near term, these trends are dampening our overall growth rate, because desktop advertising continues to be a meaningful part of our core business, representing 44% of revenue in the first nine months of 2019.

Header bidding, which increases competition for ad inventory by exposing impressions simultaneously to multiple sources of demand in a competitive auction, has been a transformative change in programmatic digital advertising over the last several years. While we initially lagged industry adoption, header bidding now represents more than 80% of our revenue. 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 future periods. 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, 2018, in order to realize our header bidding solution's full potential.

While the rise of header bidding increased revenue for sellers, it also created new challenges. Managing multiple exchanges on the page is technically complex, and in the early days of header bidding this complexity was exacerbated by the lack of independent technology standards. In 2017, we began to address these issues through our support of Prebid, a free and open source suite of software products designed by advertising community developers to enable publishers to implement header bidding on their websites and from within their apps. Despite Prebid's adoption by a number of the world's largest sellers, deploying and customizing it still requires dedicated technical resources. In May 2019, we introduced the beta version of Demand Manager, a new service that makes it easy for sellers to deploy, configure, and optimize their own Prebid-based header bidding solutions. This tool allows sellers to more effectively monetize their inventory. On October 21, 2019, we acquired RTK.io for cash consideration of $11 million. RTK.io is a provider of header bidding solutions that have much in common with our Demand Manager product, including a foundation in Prebid. We plan to integrate the two solutions to extend its Demand Manager product portfolio and client base, and to add talented header bidding experts and Prebid developers to its team. We believe that adoption of these tools will further strengthen our relationship with sellers and contribute to our future revenue growth.

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, we made first price our default auction dynamic for header bidding transactions in 2018. This means that the first price or highest bid in our auction wins and that first price is passed to the downstream auction. To assist buyers in increasing advertising campaign returns and performance through the utilization of first price auction dynamics, 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 winning provides to sellers, our first price auction dynamic and EMR solution have contributed to higher CPMs, or cost per ad unit, for our header bidding inventory. While most exchanges had already transitioned to first price auction dynamics, the largest exchange — Google Ad Exchange — recently fully transitioned to first price auction dynamics in September 2019. As part of this transition, Google also removed a feature called last look, whereby it was able to run an auction after all other exchanges had provided their auction results. We believe that these changes will have a neutral to slightly positive impact on our business.

Supply Path Optimization, or SPO, refers to efforts by buyers to consolidate the number of vendors they work with to find the most effective and cost-efficient paths to procure media. This practice emerged in 2018 and continues to gain momentum in 2019. SPO is important to buyers because it can increase the proportion of their advertising that is ultimately spent on working media, with the goal of increasing return on their advertising spending, and can help them gain efficiencies by reducing the number of vendors they work with in a complex ecosystem. There are a number of criteria that buyers use to evaluate supply partners, including transparency, cost, quality of inventory, privacy standards, brand safety, and fraudulent traffic prevention policies. We believe we are well positioned to benefit from supply path optimization in the long run, as a result of our broad inventory supply, buyer tools such as traffic shaping and EMR, which reduce the overall cost of working with us, our transparency, and our brand safety measures.

Ad tech exchange intermediaries like us have experienced market demands for greater transparency and reduced costs from all participants. The fees that we charge, or take rate, have been reduced significantly over the last several years. While we were able to increase take rates slightly over the course of 2018, we do not expect significant further increases in take rates.

Our take rate can be impacted by the type of advertising spend transacted on our platform, OMP or PMP, which carry different rates. OMP fees are higher than PMP, and our overall take rate could change depending on the mix. In addition, any discounts we negotiate with brands or agencies to consolidate spend in exchange for lower seller fees may also impact the average rate we are able to charge. If pressure for reduced costs continue, or if mix changes unfavorably, our revenue growth may be negatively impacted if we are not able to offset the related take rate reductions through increasing the volume of total advertising spend transacted on our platform.

Revenue growth from our traditional desktop display business has benefited from year-over-year take rate increases. Lower industry growth rates in desktop will make growth of desktop revenue more challenging unless we are able to grow market share through SPO or the expansion of additional inventory. Our strategic focus is on growth areas—including mobile, video, PMPs, Demand Manager, and header bidding—that are expected to represent a majority of our revenue in future periods. However, despite our progress in mobile, our traditional desktop display business is expected to continue to represent a significant part of our revenue in the near term. Therefore, the mix of our desktop display business will continue to have a significant effect on our growth until our advertising spend mix has shifted more fully to growth areas.

Industry dynamics are challenging due to market and competitive pressures and make it difficult to predict the near-term effect of our growth initiatives. While we anticipate long-term benefits from these initiatives, unless we are able to continue to increase advertising spend on our platform, through higher transaction volumes or higher transaction values or both, our revenue growth may be limited.

Expense Reduction Initiatives

In addition to strategic decisions made to reduce costs paid by our clients on our platform while growing revenue through transaction volume, we have also focused on the cost structure of our business to enable us to compete more effectively. We must operate efficiently to relieve the pressure on our margins and cash resources that has resulted from our price reductions undertaken in 2017, 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. 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. We are continuously evaluating our costs and pursuing additional cost-control and efficiency opportunities, including increased automation, across all aspects of the Company. However, we anticipate significant increases in ad request volume, and are developing internal tools to manage the volume increases and investing in software architectural improvements, filtering, and cloud services to accelerate innovation and further enable efficiencies.

Uncertainty Resulting from Privacy Regulations

Our business is highly susceptible to emerging privacy regulations and oversight. In Europe, data protection authorities have started to clarify certain requirements under the European General Data Protection Regulation, or GDPR, but uncertainty remains. Data protection authorities in a number of territories have expressed a desire to focus on the advertising technology ecosystem specifically.

In addition to the GDPR, a number of new privacy regulations will come into effect in 2020. The California legislature passed the California Consumer Privacy Act (CCPA) in 2018, which was signed into law. This regulation imposes new obligations on businesses that handle the personal information of California residents. The obligations imposed will require the Company to devote significant resources towards compliance. Certain requirements remain unclear due to ambiguities in the drafting or incomplete guidance. These ambiguities and resulting impact on our business will need to be resolved over time. In addition, other privacy bills have been introduced at both the state and federal level. In September 2019, a new ballot initiative was introduced in California, which, if passed, would amend the CCPA and impose more stringent requirements on handling the personal information of California residents in 2021. Certain international territories are also imposing new or expanded privacy obligations. For example, Brazil's data protection regulation, the LGPD, will also come into effect in August 2020. In the coming years, we expect further consumer privacy regulation worldwide.

Until prevailing compliance practices standardize, the impact of worldwide privacy regulations on our business and, consequently, our revenue could be negatively impacted.

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, 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 cloud computing costs. 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.

Restructuring and Other Exit Costs. Our restructuring and other exit costs consist primarily of employee termination costs, including stock-based compensation charges.

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, 2019 and 2018.

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

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

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 release of a foreign valuation allowance resulting from a change to a cost-plus arrangement for a foreign subsidiary, 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.

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, 2019	September 30, 2018		September 30, 2019	September 30, 2018	
	(in thousands)			(in thousands)		
Revenue	$ 37,642	$ 29,729	27 %	$ 107,928	$ 83,253	30 %
Expenses [1][2]:						
Cost of revenue	13,869	14,687	6 %	44,070	44,514	1 %
Sales and marketing	11,040	10,654	(4)%	33,151	34,046	3 %
Technology and development	10,293	9,299	(11)%	29,848	29,038	(3)%
General and administrative	9,121	9,355	3 %	29,428	33,340	12 %
Restructuring and other exit costs	—	—	NM	—	3,440	100 %
Total expenses	44,323	43,995	(1)%	136,497	144,378	5 %
Loss from operations	(6,681)	(14,266)	53 %	(28,569)	(61,125)	53 %
Other income, net	(562)	(558)	1 %	(999)	(1,766)	(43)%
Loss before income taxes	(6,119)	(13,708)	55 %	(27,570)	(59,359)	54 %
Provision (benefit) for income taxes	55	84	35 %	(569)	233	NM
Net loss	$ (6,174)	$ (13,792)	55 %	$ (27,001)	$ (59,592)	55 %

NM - Not Meaningful

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

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(in thousands)		(in thousands)	
Cost of revenue	$ 110	$ 72	$ 308	$ 256
Sales and marketing	1,378	1,187	4,182	3,530
Technology and development	1,157	691	3,382	2,163
General and administrative	2,068	1,910	6,005	6,669
Restructuring and other exit costs	—	—	—	398
Total stock-based compensation expense	$ 4,713	$ 3,860	$ 13,877	$ 13,016

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

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(in thousands)		(in thousands)	
Cost of revenue	$ 7,737	$ 8,271	$ 23,540	$ 24,785
Sales and marketing	67	141	305	455
Technology and development	102	215	476	683
General and administrative	121	140	520	432
Total depreciation and amortization expense	$ 8,027	$ 8,767	$ 24,841	$ 26,355

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, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Revenue	100 %	100 %	100 %	100 %
Cost of revenue	37	49	41	53
Sales and marketing	29	36	31	41
Technology and development	27	31	28	35
General and administrative	25	32	26	40
Restructuring and other exit costs	—	—	—	4
Total expenses	118	148	126	173
Loss from operations	(18)	(48)	(26)	(73)
Other income, net	(2)	(2)	—	(2)
Loss before income taxes	(16)	(46)	(26)	(71)
Provision (benefit) for income taxes	—	—	(1)	1
Net loss	(16)%	(46)%	(25)%	(72) %

Comparison of the Three and Nine Months Ended September 30, 2019 and 2018

Revenue

Revenue increased $7.9 million, or 27%, for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. For the nine months ended September 30, 2019, revenue increased $24.7 million, or 30%, compared to the prior year period. Our revenue growth for the three and nine months ended September 30, 2019 was driven by ongoing increases in advertising spend transacted on our platform and by increases in take rate, or the fee we earn on advertising spend, with the majority of take rate increases having occurred in 2018.

Revenue is impacted by shifts in the mix of advertising spend by transaction type and channel, changes in the fees we charge for our services, and other factors such as changes in the market, our execution of the business, and competition. In addition, an increase in PMP transactions as a percentage of the transactions on our platform could also result in reduced revenue, if not offset by increased volume, 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. While we anticipate long-term benefits from these initiatives, unless we are able to continue to increase advertising spend on our platform, through higher transaction volumes or higher transaction values or both, our revenue growth may be limited. We expect that revenue in the fourth quarter of 2019 will increase, which is consistent with normal fourth quarter seasonal patterns. However, because take rates in 2019 have been and are expected to be roughly equivalent to those in the fourth quarter of 2018, we expect that year-over-year revenue growth in the fourth quarter of 2019 will be driven primarily by ad spend growth. As a result, the year-over-year percentage revenue growth in the fourth quarter of 2019 will likely be lower than the year-over-year percentage growth rates achieved through the first nine months of 2019.

Cost of Revenue

Cost of revenue decreased $0.8 million or 6% for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. For the nine months ended September 30, 2019, cost of revenue decreased $0.4 million, or 1%, compared to the prior year period.

We expect cost of revenue to be lower in absolute dollars in 2019 compared to 2018, and to continue to decline slightly for the remainder of 2019 as we have continued our focus on infrastructure serving efficiency. 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. We are expanding select data center operations to cloud service providers to accelerate innovation and gain efficiencies, and to support the growth of our business. We expect an increase in cost of revenue expenses over the long term as a result.

Sales and Marketing

Sales and marketing expenses increased $0.4 million, or 4%, for the three months ended September 30, 2019 compared to the three months ended September 30, 2018, primarily due to an increase in personnel costs.

For the nine months ended September 30, 2019, sales and marketing expenses decreased $0.9 million, or 3%, compared to the prior year period. The decrease was primarily due to the benefit of the prior year's cost control initiatives.

We expect sales and marketing expenses to decline slightly in 2019 compared to 2018, and remain flat through the end of 2019. 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 increased by $1.0 million, or 11%, for the three months ended September 30, 2019 compared to the three months ended September 30, 2018, primarily due to an increase of $1.3 million in personnel costs.

For the nine months ended September 30, 2019, technology and development expenses increased $0.8 million, or 3%, compared to the prior year period.

We expect technology and development expense to increase in 2019 compared to 2018, with small increases in the fourth quarter of 2019 as we make strategic headcount additions to focus on the engineering aspect of our new developments, including Demand Manager and other initiatives. 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 $0.2 million, or 3%, for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. The decrease is primarily due to the benefit of the prior year's cost control initiatives.

For the nine months ended September 30, 2019, general and administrative expenses decreased $3.9 million, or 12%, compared to the prior year period, primarily due to a $2.0 million decrease in personnel costs as a result of our 2018 cost control initiatives and professional services fees, which decreased $1.5 million in the current year period.

We expect general and administrative expenses to decrease in 2019 compared to 2018 as a result of our prior year cost control initiatives. General and administrative expenses may fluctuate from quarter to quarter and period to period based on the timing and amounts of expenditures in our general and administrative functions as they vary in scope and scale over periods. Such fluctuations may not be directly proportional to changes in revenue.

Restructuring and Other Exit Costs

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.

For the nine months ended September 30, 2018, we incurred restructuring and other exit costs of $3.4 million for severance and other one-time employee termination benefits related to headcount reductions that were made in the first quarter of 2018 (see Note 8 to the condensed consolidated financial statements). There were no restructuring and other exit costs incurred during the three months ended September 30, 2018, or during the three and nine months ended September 30, 2019. All remaining accrued costs as of December 31, 2018 associated with the 2018 restructuring events were paid in the first quarter of 2019.

Other Income, Net

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(in thousands)		(in thousands)	
Interest income, net	$ (218)	$ (232)	$ (625)	$ (777)
Other income	(48)	(206)	(236)	(626)
Foreign exchange gain, net	(296)	(120)	(138)	(363)
Total other income, net	$ (562)	$ (558)	$ (999)	$ (1,766)

Foreign exchange gain, net is impacted by movements in exchange rates and the amount of foreign currency-denominated receivables and payables, which are impacted by our billings to buyers and payments to sellers. During the three and nine months ended September 30, 2019, the net foreign exchange gain was primarily attributable to the currency movements between the British Pound and the European Euro relative to the U.S. Dollar.

Provision (Benefit) for Income Taxes

We recorded an income tax expense of $0.1 million and an income tax benefit of $0.6 million for the three and nine months ended September 30, 2019, respectively, and income tax expenses of $0.1 million and $0.2 million for the three and nine months ended September 30, 2018, respectively. The tax provision for the three and nine months ended September 30, 2019 is primarily the result of the release of a foreign valuation allowance resulting from a change to a cost-plus arrangement for a foreign subsidiary, the domestic valuation allowance, and the tax liability associated with foreign subsidiaries.

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, 2019, we had cash and cash equivalents of $85.1 million, of which $12.1 million was held in foreign currency cash accounts. 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.

In September 2018, we amended and restated our loan and security agreement with SVB (the "Loan Agreement"). The Loan Agreement provides a senior secured revolving credit facility of up to $40.0 million with a maturity date of September 26, 2020. Pursuant to the Loan Agreement, we are required to comply with financial covenants. While we are currently in compliance with these covenants, this could change in the future depending on our operating results.

At September 30, 2019, 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. See Note 12 of "Notes to Condensed Consolidated Financial Statements" for additional information regarding the Loan Agreement.

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, there are multiple factors that could impact our cash balances in the future. For example, we typically collect from buyers in advance of payments to sellers, and our collection and payment cycle can vary from period to period depending upon various circumstances, including seasonality. Some buyers have been demanding longer terms to pay us later and some sellers have been 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. Some buyers have also began experiencing financial difficulty and have been forced into filing for bankruptcy protection, and we may be forced to pay sellers even if we are unable to collect from buyers. 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, 2018 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 demonstrate a path to consistently 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, 2019	September 30, 2018
	(in thousands)	
Cash flows provided by (used in) operating activities	$ 9,808	$ (22,552)
Cash flows (used in) provided by investing activities	(4,105)	28,844
Cash flows used in financing activities	(841)	(470)
Effects of exchange rate changes on cash, cash equivalents and restricted cash	(192)	(110)
Change in cash, cash equivalents and restricted cash	$ 4,670	$ 5,712

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 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.

For the nine months ended September 30, 2019, net cash provided by operating activities was $9.8 million compared to net cash used in operating activities of $22.6 million for the nine months ended September 30, 2018. Our operating activities included our net losses of $27.0 million and $59.6 million for the nine months ended September 30, 2019 and 2018, respectively, which were offset by non-cash adjustments of $38.1 million and $39.2 million, respectively. In the first three quarters of 2019, net changes in our working capital reduced cash provided by operating activities by $1.3 million. Net cash used in operating activities for the first three quarters of 2018 was increased by a net decrease in our working capital of $2.1 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 and working capital needs.

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 cycles of our internal use software development. 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. 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. As the business continues to grow, we expect our investment in property and equipment to slightly increase compared to 2018. Historically, a majority of our purchases in property and equipment have occurred in the latter half of the year in preparation for the peak volumes of the fourth quarter and early in the first quarter of the following year. We expect those trends to continue, with higher levels of property and equipment spend in the latter half of this year compared to the first half of the year. 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, 2019 and 2018, our investing activities used net cash of $4.1 million and provided net cash of $28.8 million, respectively. For the nine months ended September 30, 2019 and 2018, we had net maturities of investments in available-for-sale securities of $7.5 million and $31.7 million, respectively. In addition, we had cash inflows of $9.2 million during the nine months ended September 30, 2018 related to sales of available-for-sale securities. These cash inflows were offset by purchases of property and equipment of $5.6 million and $5.5 million during the nine months ended September 30, 2019 and 2018, respectively, and investments in our internally developed software of $6.0 million and $6.6 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, 2019 and 2018, we used net cash of $0.8 million and $0.5 million, respectively, for financing activities. Cash outflows from financing activities for the nine months ended September 30, 2019 and 2018 included payments of $1.8 million and $0.7 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.

Off-Balance Sheet Arrangements

We do not have any relationships with other entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities that have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. We did not have any other off-balance sheet arrangements at September 30, 2019 other than the short-term 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 operating lease agreements including data centers that expire at various times through 2030. At September 30, 2019, expected future commitments relating to operating leases associated with leases included in the lease liability and ROU asset on the condensed consolidated balance sheet were $26.9 million. See Note 11 of "Notes to Condensed Consolidated Financial Statements" for our lease commitment for each of the next five years and thereafter. In certain cases, the terms of the lease agreements provide for rental payments on a graduated basis. We received rental income from subleases totaling $48.4 thousand and $0.2 million for the three and nine months ended September 30, 2019, respectively.

There were no significant changes to our unrecognized tax benefits in the nine months ended September 30, 2019 and we do not expect to have any significant changes to unrecognized tax benefits through December 31, 2019.

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, 2019.

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) 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. 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, 2018 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 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 client, which occurs at the point in time an ad renders and is counted as a paid impression, subject to a contract existing with the client 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.

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 smaller reporting companies.

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, 2019, 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, 2019 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 routine 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, 2019. However, based on our knowledge as of September 30, 2019, 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.

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, 2018 (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. There are no material changes to the Risk Factors of which we are currently aware; but 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.

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

(a) Recent Sales of Unregistered Securities

None.

(b) Use of Proceeds

As of September 30, 2019, all of the proceeds from our initial public offering of common stock effected through a Registration Statement on Form S-1 (File No. 333-193739) have been applied as described in our final prospectus filed with the SEC pursuant to Rule 424(b) of the Securities Act and other period 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 repurchases of common stock during the three months ended September 30, 2019.

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).
31.1*	Certification of Principal Executive Officer Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32*(1)	Certification of the Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.ins *	Instance Document- the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.sch *	XBRL Taxonomy Schema Linkbase Document
101.cal *	XBRL Taxonomy Calculation Linkbase Document
101.def *	XBRL Taxonomy Definition Linkbase Document
101.lab *	XBRL Taxonomy Label Linkbase Document
101.pre *	XBRL Taxonomy Presentation Linkbase Document

* Filed herewith

(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 and Duly Authorized Officer)

Date November 6, 2019

Exhibit 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

I, Michael Barrett, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of The Rubicon Project, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Signature: /s/ Michael Barrett

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

Date November 6, 2019

Exhibit 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

I, David Day, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of The Rubicon Project, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Signature: /s/ David Day

David Day
Chief Financial Officer
(Principal Financial Officer)

Date November 6, 2019

Exhibit 32

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

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

1. Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, to which this certification is attached as Exhibit 32 (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date November 6, 2019

/s/ Michael Barrett

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

/s/ David Day

David Day
Chief Financial Officer
(Principal Financial Officer)

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