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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2015
OR

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

Commission File Number: 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

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

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.00001 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

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

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

As of June 30, 2015, the aggregate market value of shares held by non-affiliates of the registrant (based on the closing sales price of such shares on the New

York Stock Exchange on June 30, 2015) was approximately $424.8 million.

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 February 22, 2016
Common Stock, $0.00001 par value	**47,178,441**

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the 2016 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2015.

THE RUBICON PROJECT, INC.
FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015
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SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains 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 performance, including revenue, margin, cash flow, balance sheet, and profit expectations; development of our technology; introduction of new offerings; scope and duration of client relationships; business mix; sales growth; client utilization of our offerings; market conditions and opportunities; and operational and financial measures including managed revenue, non-GAAP net revenue, paid impressions, average CPM, Adjusted EBITDA, and take rate; and factors that could affect these and other aspects of our business. These statements are not guarantees of future performance; they reflect our current views with respect to future events and are based on assumptions and estimates and subject to known and unknown risks, uncertainties and other factors that may cause our actual results, performance, or achievements to be materially different from expectations or results projected or implied by forward-looking statements. These risks include, but are not limited to:

- *our ability to grow rapidly 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, large buyers;*
- *the effect on the advertising market and our business of difficult economic conditions;*
- *the freedom of buyers and sellers to direct their spending and inventory to competing sources of inventory and demand;*
- *our ability to use our solution to purchase and sell higher value advertising and to expand the use of our solution by buyers and sellers utilizing evolving digital media platforms;*
- *our ability to introduce new offerings and bring them to market in a timely manner in response to client demands and industry trends, including shifts in digital advertising growth from display to mobile channels;*
- *uncertainty of our estimates and expectations associated with new offerings, including private marketplace, mobile, Orders, automated guaranteed, video, and intent marketing;*
- *our ability to maintain a supply of advertising inventory from sellers;*
- *uncertainty of our estimates and assumptions about the mix of gross and net reported transactions;*
- *declining take rate associated with our buyer cloud transactions;*
- *our limited operating history and history of losses;*
- *our ability to continue to expand into new geographic markets;*
- *our ability to adapt effectively to shifts in digital advertising to mobile and video channels;*
- *increased prevalence of ad blocking technologies;*
- *the slowing growth rate of online digital display advertising;*
- *the growing percentage of online and mobile advertising spending captured by owned and operated sites (such as Facebook and Google) where we are unable to participate;*
- *the effects of increased competition in our market and increasing concentration of advertising spending, including mobile spending, in a small number of very large competitors, and our ability to differentiate offerings, compete effectively and to maintain our pricing and take rate;*
- *requests from buyers and sellers for discounts, fee concessions or revisions, rebates, 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 consummate and integrate future acquisitions of or investments in complementary companies or technologies and our ability to identify such companies or technologies;*

- *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; and*
- *our ability to develop and maintain our corporate infrastructure, including our finance and information technology systems and controls.*

We discuss many of these risks in Item 1A of this Annual Report on Form 10-K in greater detail under the heading "Risk Factors" and in other filings we make from time to time with the Securities and Exchange Commission, or SEC. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this Annual Report on Form 10-K. 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, we generally give guidance 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 Annual Report on Form 10-K and the documents that we reference in this report and have filed 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.

PART I

Item 1. Business Overview

We provide a complete technology solution to automate the purchase and sale of advertising for both buyers and sellers. Our highly scalable platform reaches approximately one billion Internet users globally on some of the world's leading websites and mobile applications. We help increase the volume and effectiveness of advertising, improving revenue for sellers and return on advertising investment for buyers. We believe our integration with leading global buyers and sellers of advertising and the benefits we provide to them give us a critical position in the digital advertising ecosystem.

Advertising takes different forms, referred to as advertising units, and is purchased and sold through different transactional methodologies, referred to as inventory types. Finally, it is presented to users through different channels. Our solution enables buyers and sellers to purchase and sell:

- a comprehensive range of advertising units, including display and video;
- utilizing various inventory types, including (i) direct sale of premium inventory, which we refer to as Orders, on a guaranteed, or fully reserved basis, as well as on a non-guaranteed basis; (ii) real-time bidding, or RTB; and (iii) static bidding;
- across digital channels, including mobile web, mobile application, and desktop, as well as across various out of home channels, such as digital billboards, that are in the early stages of leveraging our advertising automation platform.

Our platform features applications for digital advertising sellers, including websites, mobile applications and other digital media properties, to sell their advertising inventory; applications and services for buyers, including advertisers, agencies, agency trading desks, or ATDs, demand side platforms, or DSPs, and ad networks, to buy advertising inventory; and a marketplace over which such transactions are executed. Together, these features power and optimize a comprehensive, transparent, independent advertising marketplace that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the advertising inventory we manage on our platform.

Sellers of digital advertising use our platform to maximize revenue by accessing a global market of buyers representing top advertiser brands around the world to monetize their advertising inventory across inventory types, advertising units, and channels. We also help sellers decrease costs and protect their brands and user experience. Our relationships with our sellers are built on technical integration, which differentiates us from many other participants in the advertising ecosystem.

At the same time, buyers leverage our platform to manage their advertising spending across inventory types, advertising units, and channels, simplify order management and campaign tracking, obtain actionable insights into audiences for their advertising, and access impression-level purchasing from hundreds of sellers. We believe buyers need our platform because of our powerful solution and our direct relationships and integrations with some of the world's largest sellers.

Our platform incorporates proprietary machine-learning algorithms, sophisticated data processing, high-volume storage, detailed analytics capabilities, and a distributed infrastructure. We analyze billions of data points in real time to enable our solution to make approximately 300 data-driven decisions per transaction in milliseconds, and to execute up to 5 million peak queries per second, and over 9 trillion bid requests per month. Since 2012, we have processed approximately 200 trillion bid requests. Our solution is constantly self-optimizing based on our systems' ability to analyze and learn from vast volumes of data. The additional data we obtain from the volume of transactions on our platform help make our machine-learning algorithms more intelligent, leading to higher quality matching between buyers and sellers, better return on investment for buyers, and higher revenue for sellers. As a result of that high quality matching, we attract even more sellers which in turn attracts more buyers and vice versa. We believe this self-reinforcing dynamic creates a strong platform for growth.

During the early stages of our business following our incorporation in April 2007, our solution helped sellers to automate their existing advertising network relationships to match the right buyer with each impression, as well as increase their revenue and decrease their costs. Between 2008 and 2009, we developed direct relationships with buyers and created applications to assist buyers to increase their return on investment. During 2010, we added RTB capabilities, allowing sellers' inventory to be sold in an auction to buyers, creating a real time unified auction where buyers compete to purchase sellers' advertising inventory. During 2012, we launched our private marketplace orders application, which allows sellers to connect directly with pre-approved buyers to execute direct sales of previously unsold advertising inventory.

Measured by inventory type, in 2015 the fastest-growing sources of our managed revenue were RTB and Orders, which also represent our most significant growth opportunities for the future. In December 2015, International Data Corporation, or IDC, estimated that RTB was a $10.3 billion global market in 2015 and will increase to $20.5 billion by 2019, and Orders was a $3.7 billion global market in 2015 and will grow to $34.1 billion by 2019. The compound annual growth rate for these market opportunities is 41% on a combined basis. In addition, we are facilitating increasing spending in RTB and Orders on our platform via our expanded range of buyer capabilities. From a channel perspective, mobile advertising automation also represents a fast-growing market opportunity. Mobile advertising (excluding search advertising) was a $28.1 billion global market in 2015 that is expected to increase to $85.1 billion by 2019, according to IDC estimates.

To further capitalize on the growth opportunity in Orders, in 2014 we introduced the first-generation of our guaranteed orders solution to automate the buying and selling of premium digital inventory on a fully reserved, or guaranteed, basis. In late 2014, we further expanded our orders automation technology and further increased our capabilities in the automated guaranteed market with the acquisition of two companies, iSocket, Inc., or iSocket, and Shiny Inc., or Shiny. The addition of iSocket and Shiny provided additional solutions to automate the buying and selling of direct-sold and guaranteed deals. Combined with our pre-existing orders technology, these acquisitions enabled us in 2015 to create a fully integrated solution for automating, streamlining, and managing the processes of direct buying and selling of guaranteed and non-guaranteed advertising.

In April 2015, we advanced our buyer capabilities through the strategic acquisition of Chango Inc., or Chango, an intent marketing technology company. The acquisition expanded our buyer capabilities and expertise and our direct integrations with premium brands and advertising agencies. The acquisition also reinforced our order automation technology, specifically through the advancement of our Orders (Guaranteed Orders and Non-Guaranteed Orders) platform.

In 2015, we also significantly advanced our mobile capabilities and grew our mobile managed revenue by 126% year-over-year through a combination of internal product development, strategic customer wins, driving increased revenue from existing buyer and seller customers, and international expansion.

We operate our business on a worldwide basis, with an established operating presence in North America and Europe and a developing presence in Asia and Latin America. Based on the location of sellers that use our platform, for the year ended December 31, 2015, approximately 35% of our managed revenue was generated from international markets.

Rubicon Project is a Delaware corporation established in 2007. We are headquartered in Los Angeles, California.

Our Industry

Continued Shift Towards Digital Advertising

The advertising industry is experiencing significant change and extraordinary growth in advertising automation, highlighted by the growth in RTB and Orders. According to IDC estimates (December 2015), RTB was a $10.3 billion global market in 2015 expected to increase to $20.5 billion by 2019, and Orders was a $3.7 billion global market in 2015 expected to grow to $34.1 billion by 2019. The compound annual growth rate for these market opportunities is 41% on a combined basis.

The growth in RTB and Orders demonstrates the powerful shift underway in the global advertising industry from advertising in analog and print media, such as newspapers, magazines, broadcast radio, and television, to digital advertising. This decades-long shift has resulted in content being increasingly delivered to users over the Internet, mobile networks and digital television, creating an opportunity for buyers to target audiences more accurately using data-driven strategies and deliver more relevant advertising in real time on multiple screens. Buyers are able to utilize various technologies to analyze data relating to return on investment, demographics, user behavior, location, and other attributes that enable them to create and deliver targeted advertisements to users, which helps achieve specific advertising goals. As a result, digital advertising has the potential to drive return on advertising investment significantly higher than traditional print, broadcast radio, and television. Technological advances have also enabled sellers to sell their inventory on an impression-by-impression basis, as well as in bulk, making it easier for sellers to better optimize and expand the monetization of their inventory.

Despite these inherent advantages of automated digital advertising for buyers, according to IDC, automated digital advertising represented just 2% of global advertising industry spending in 2015. As a result, the anticipated continued shift of advertising spending to automated digital channels in the future represents a significant growth opportunity.

Development of a Complex Digital Advertising Ecosystem Comprising a Large Number of Buyers, Sellers, and Other Participants

In the early stages of the digital advertising market, buyers and sellers of inventory transacted directly with one another or through a small number of intermediaries. As Internet usage increased and the scale of sellers and data expanded, it became increasingly difficult for buyers to effectively target users and for sellers to effectively monetize their inventory. To address these challenges, buyers and sellers of inventory have come to rely on an ecosystem of multiple technology and service providers. Some of the various types of buyers and sellers are described below.

Buyers: At one end of the ecosystem, spending begins with advertisers, who execute digital advertising campaigns directly or through various intermediaries. Buyers include:

- Advertisers: Companies marketing their brands, products and services through advertising campaigns.
- Agencies: Advertising holding companies and their owned agencies that plan and execute advertising campaigns for their commercial clients.
- Agency trading desks, or ATDs: Typically, agencies plan and execute media purchases by interacting with DSPs through their own in-house ATDs. Advertising agencies often centralize their digital advertising expertise into an ATD in order to better optimize advertiser campaigns and digital media purchases.
- DSPs: There are many DSPs in the digital advertising industry and they generally use real-time bidding, or RTB, to purchase advertising inventory from sellers on an automated, impression-by-impression basis. DSPs may earn revenue through arbitrage, like ad networks, or they may charge fees for their services.
- Ad networks: There are hundreds of ad networks that seek to optimize campaigns to achieve advertiser and agency goals. Ad networks often arbitrage by purchasing advertising inventory from sellers and then selling it to advertisers at higher prices.

Sellers: At the other end of the ecosystem, sellers create websites and mobile applications that contain viewable space for advertisements, or impressions, that can be delivered to users as they visit and navigate through websites, and applications across different channels, such as desktop, mobile devices, satellite, cable, smart TV, or set-top boxes. These impressions can be sold to buyers, either in advance via manual or automated direct sales efforts, or in real time on an impression-by-impression basis via a third party through the digital advertising ecosystem. Sellers include:

- Website publishers (desktop): Operators of browser-based websites optimized for desktop computers.
- Website publishers (mobile web): Operators of browser-based websites optimized for mobile devices, such as smartphones or tablets.
- Mobile application developers: Operators of Internet application software designed to efficiently display publisher content on mobile devices such as smartphones or tablets, typically without requiring a browser.
- Ad networks: In certain instances, ad networks can also serve as sellers to advertising automation platforms (such as Rubicon Project) by supplying desktop or mobile inventory via integrations the ad network established with publishers.

Complicated and Manual Workflow for Direct Buying and Selling of Digital Advertising

Due to the size and complexity of the advertising ecosystem and purchasing process, manual processes can no longer effectively optimize or manage digital advertising. In addition, both buyers and sellers are demanding more transparency, better controls and more relevant insights from their advertising purchases and sales. Buyers and sellers benefit from a platform that enables them to leverage the targeting capabilities of their proprietary data assets. This has created a need to automate the digital advertising industry and to simplify the process of buying and selling advertising.

Digital Advertising is Complex and Challenging to Automate

A variety of factors make the digital advertising ecosystem highly complex and challenging to automate:

- ***Perishable Inventory.*** An Internet user's visit to a website or mobile application creates a unique opportunity to reach the user by inserting advertisements into one or more of the impressions designed into the website or mobile application. In order to generate revenue for a seller these impressions must be filled before the page content loads. The inventory of available impressions is highly perishable due to the fact that each impression must be identified, valued, auctioned, and successfully purchased, and the advertisement must be delivered into that impression, in the split second between the time a user types in a web-address or is redirected to a website or mobile application and the time the page is loaded. Buyers and sellers need a solution that can analyze and execute on their objectives in an automated fashion at virtually instantaneous speed, or real time.
- ***Complex Impression-Level Matching.*** Sellers aim to sell impressions to maximize revenue while enhancing the users' experience and preserving the sellers' brand. Buyers seek to purchase impression-level inventory to maximize targeting of specific audiences and return on investment for their advertising spending. As a result of this dynamic, there is a need for a technology solution that can match buyer and seller objectives at a large scale to optimize the delivery of advertising on an impression-by-impression basis.
- ***Large Multi-Variate Datasets.*** Trillions of data points relating to browsing behavior, geographic information, user preferences, engagement with an advertisement, and effectiveness of an advertisement are created as users visit sellers' websites and mobile applications. Each piece of data represents a valuable piece of information that can facilitate and improve current and subsequent targeting and monetization of impressions. However, the volume of data available is so large that it is difficult for buyers and sellers to effectively manage the information flow to extract maximum value from the data. As a result, buyers and sellers need a solution capable of analyzing, processing, and interpreting large amounts of data and executing buy and sell orders informed by such data, all in real time.
- ***Fragmented Buyer and Seller Base.*** There is an enormous number and variety of buyers and sellers of digital advertising. Historically, inefficient manual transaction techniques have been inadequate to cope with this fragmentation, making it difficult for sellers to efficiently transact with many buyers to maximize revenue, and for buyers to make large volume buys safely and securely to meet their investment objectives. This inefficiency has created a need for a solution that is capable of seamlessly connecting a highly fragmented global buyer and seller base.
- ***Brand Security and Inventory Quality Concerns.*** Buyers are concerned about being associated with content they consider inappropriate, competitive, or inconsistent with their advertising themes. Sellers want to prevent advertisements that are inappropriate, competitively sensitive, or otherwise do not comport with their brand image from appearing on their websites or mobile applications. As sellers try to make their inventory available to a wider group of buyers, and buyers extend their reach in pursuit of target audiences, the importance of brand security increases for both buyers and sellers. Moreover, the indirect nature of many relationships between buyers and sellers on advertising exchanges or ad networks can, in the absence of sufficient quality controls, result in inferior inventory quality that places the advertiser buyer at risk or inferior quality advertisements that place the publisher at risk. Both buyers and sellers need a solution that is capable of following specified rules to maintain brand integrity and deliver relevant advertisements and inventory that meets quality standards to create a positive user experience, while efficiently executing a large volume of transactions.
- ***Consumer Experience Concerns.*** Consumers prefer digital experiences featuring advertising that is relevant to their personal interests, non-intrusive, and that does not detract from or slow down their enjoyment of digital content.

- ***Large and Highly Unpredictable Traffic Volumes.*** The scale of user traffic and the dollar value of digital advertisements is difficult to manage efficiently. A large seller may have tens of millions of users per month, creating hundreds of millions of monthly impressions. The volume of traffic for any given seller is extremely difficult to predict. Breaking news stories, as an example, create spikes in traffic on news websites for a period of time. As a result, sellers need a platform that can effectively respond to and monetize inventory during unpredictable spikes in volumes.
- ***Lack of Standardized Ad Formats and Data.*** An available advertising impression can vary based on a number of factors, such as seller, ad format, screen size, pricing mechanism, content type, and audience demographic. It is challenging for buyers to efficiently evaluate and bid on trillions of impressions that are based on hundreds of ad formats in the context of millions of highly customized data fields. As a result, buyers and sellers require a platform that can, on a real time basis, match a large variety of available advertising impressions with those potential buyers. Buyers and sellers also often work with multiple technology platforms to develop their advertising automation solutions, creating integration challenges required to manage multiple advertising technology vendors and resulting in significant operational complexity.

Rubicon Project: Our Platform Enables the Digital Advertising Marketplace

Rubicon Project was founded to address the inherent challenges associated with the digital advertising ecosystem and to enable a marketplace where buyers and sellers can transact in a highly efficient and safe manner.

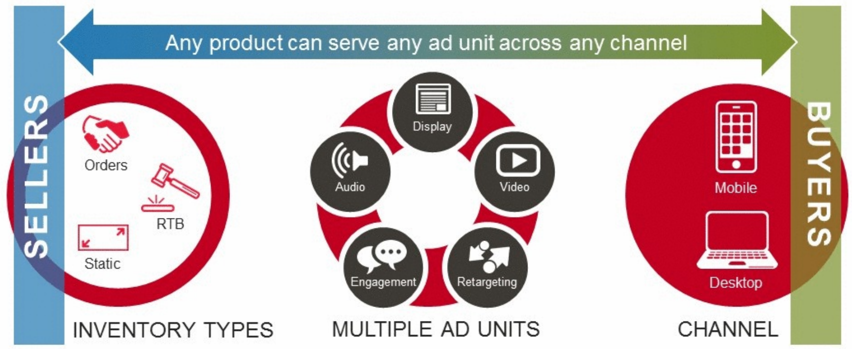
Our technology platform creates and powers a marketplace for buyers and sellers to readily buy and sell advertising at scale. Our solution provides a critical connection between buyers and sellers and allows large numbers of buyers and sellers to transact on an automated basis. Buyers can direct their spending towards the impressions that are of most value to them based on demographics, pricing, timing, and other targeting objectives. Sellers can optimize the amount of revenue per impression, while adhering to their own specific rules around advertising that is permissible on their websites and mobile applications. Our platform enables the real time exchange of high volumes of information in a transparent marketplace that in turn enables sellers to match buyers' advertising campaigns with their available advertising inventory.

Sellers have a broad spectrum of advertising inventory available for sale, ranging from premium inventory located on their homepages, to secondary placements, which are generally located on pages deeper within their websites or mobile applications. Sellers may also have different versions of their websites and mobile applications optimized for a variety of devices, from computers to tablets to smartphones, which also increases the variety of advertising inventory available for sale.

Our buyer capabilities enable advertising agencies, brand advertisers, DSPs and other buyers to efficiently find and connect with a target audience to build brand awareness, acquire new customers, and re-engage existing customers via site-based retargeting campaigns. These capabilities can enable buyers to target individuals using rich consumer intent data available on our platform that is continuously updated in milliseconds.

Optimizing for a Broad Universe of Buyers and Sellers Across a Full Spectrum of Inventory Types, Advertising Units, and Channels

As shown in the illustration below, our solution enables buyers and sellers to transact across a full spectrum of inventory types, advertising units, and channels.



Different inventory types have different characteristics to address different client objectives.

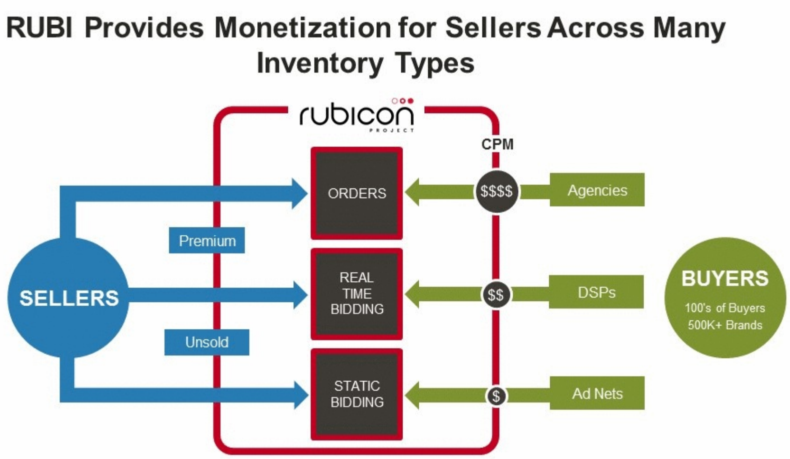
Guaranteed Orders—automates one-to-one guaranteed inventory purchases between buyers and sellers.

Non-Guaranteed Orders—automates one-to-one non-guaranteed inventory purchases arranged directly between specific buyers and sellers on the platform.

Real Time Bidding—enables the sale and purchase of inventory on an impression-by-impression basis. Buyers are able to leverage our platform to select individual impressions that meet their targeting criteria and sellers are able to leverage our platform to auction their inventory on an impression-by-impression basis to optimize revenue.

Static Bidding—enables buyers to provide static or pre-set bids, to buy targeted inventory in bulk, while providing additional monetization for sellers of their lower-value inventory that they may not otherwise be able to sell.

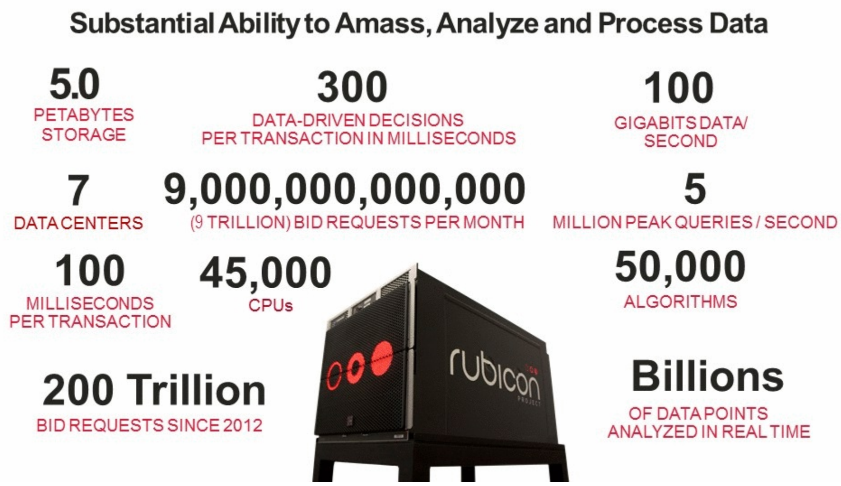
As shown in the illustration below, our platform integrates these inventory types into a unified auction across a broad universe of buyers, while matching available impressions with advertisements based upon various criteria.



By accommodating a full spectrum of digital advertising inventory, our solution provides greater coverage of all websites and mobile applications owned by a range of sellers, and attracts all types of buyers, thereby giving buyers the ability to fulfill their audience needs in a more cost-effective manner and optimizing the price at which sellers' inventory is sold. In addition, our Orders integrations further our access to premium inventory not historically available to us because it was sold through manual efforts.

Big Data Analytics and Machine-Learning Algorithms

A core aspect of our value proposition is our big data and machine-learning platform that is able to discover unique insights from our massive data repositories containing proprietary information on trillions of bid requests and served advertisements. Our systems collect and analyze non-personally identifiable information such as pricing of advertisements, historical clearing prices, bid responses, what types of ads are allowed on a particular website, which sellers' websites a buyer prefers, what ad formats are available to be served, advertisement size and location, where a user is located, which users a buyer wants to target, how many ads the user has seen, browser or device information, and sellers' proprietary data about users. We have developed proprietary machine-learning algorithms that analyze billions of these data points to enable our solution to make approximately 300 data-driven decisions per transaction in real time and to execute approximately 9 trillion bid requests per month.



Dual Network Effects Drive an Efficient and Self-Optimizing Marketplace

We bring value to both buyers and sellers through the dual network effects created by our solution—large volumes of data lead to better matching, which attracts more buyers and sellers, leading to more data. We have one of the largest digital advertising data repositories in the world, which puts us in a unique position to develop differentiated insights to help both buyers and sellers. Our solution is constantly self-optimizing based on our ability to analyze and learn from vast volumes of data. As our platform processes more volume in the form of bid requests, user visits, events, and transactions, we accumulate more data. This additional data helps make our machine-learning algorithms more intelligent and this leads to higher-quality matching between buyers and sellers, leading to better return on investment for buyers and higher revenue for sellers. As a result of that high-quality matching, we attract even more sellers, which in turn attracts more buyers and vice versa. We believe this self-reinforcing dynamic creates a strong platform for growth.

Competitive Strengths

Critical Position in Digital Advertising Ecosystem

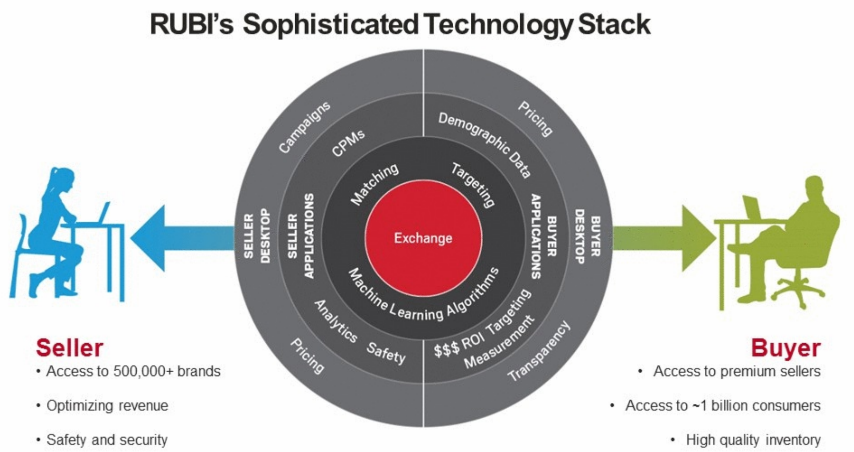
Our platform and the applications we provide for buyers and sellers are a critical element of the digital advertising ecosystem. We have direct relationships and integrations with sellers of inventory. In order to maximize the monetization of their advertising inventory through our platform, sellers integrate with our seller applications, train their teams to use our platform for planning and executing campaigns, and automate their workflow to leverage our platform. We believe that there are few market participants that are directly integrated with sellers in a way that allows sellers to make a full range and volume of their advertising inventory readily available in the marketplace. Sellers use our platform to access actionable insights from the data we have amassed and to consolidate and compile payments and billing. The selling, planning, training, integration, and optimization period for each seller requires an investment of time and effort. Once integrated, we believe sellers would experience high switching costs to move large volumes of their inventory to a new platform, and would lose monetization while new algorithms relearn data characteristics. We also believe few competitors can match our comprehensive solution and sellers are not motivated to implement a replacement solution requiring multiple platforms. At the same time, buyers leverage our platform to manage their advertising spending, simplify order management and campaign tracking, attain actionable insights, and get access to impression-level purchasing from hundreds of sellers. We believe that buyers need our platform to take advantage of our direct relationships and integrations with some of the world's largest sellers. The benefits we provide to both buyers and sellers, and the time and effort spent by both buyers and sellers to integrate with our applications, give Rubicon Project a critical position in the digital advertising ecosystem. As a result, we have historically been highly successful in retaining our clients and growing our seller base.

Ensuring a Positive User Experience for Consumers

Our advertising automation platform helps protect consumer interests and promotes a favorable user experience for consumers by proactively enforcing quality standards across our ecosystem of buyers and seller customers. We maintain industry-leading quality standards for all advertising transacted on our marketplace by evaluating all available types of seller inventory and pre-screening every piece of advertising creative, providing safeguards against malware and other forms of non-human traffic, and ensuring compliance with the Children's Online Privacy Protection Act (COPPA) governing advertising placements targeting children. During 2015, Rubicon Project was the only platform consistently ranked in the top three for both desktop and mobile inventory quality by Pixalate's Global Seller Trust Index, an independent measure of advertising inventory quality. Our platform also promotes a positive consumer experience by delivering increased advertising relevance through effective matching of buyers' interests with sellers' available inventory via our machine-learning algorithms in privacy compliant methods that do not result in collecting any personally identifiable consumer information.

Platform Applications

To enhance the value our technology platform brings to the marketplace, we offer a number of applications to address the critical needs of buyers and sellers as depicted in the image below:



Applications for Sellers. We have direct relationships and integrations with the sellers on our platform. Our user interface offers key time savings features and granular reporting and analytics capabilities that help sellers optimize the use of our platform to fit their needs. Our solution includes applications to help them increase their digital advertising revenue, reduce costs, protect their brands and user experience, and reach more buyers efficiently to increase digital advertising revenue by monetizing their full variety and volume of inventory.

Sellers realize the following benefits from our platform:

- ***Maximized Revenue Across Inventory Types, Advertising Units, and Channels Without Volume or Geographic Constraints.*** We provide applications that help a seller monetize inventory across a comprehensive range of inventory types (Orders, RTB and static bidding), advertising units (display or video) and channels (desktop, mobile web, and mobile application). We enable them to monetize a broad base of advertising inventory with virtually no constraints on the type or volume of inventory that can be sold or the number or location of potential buyers. We support placements throughout various areas of our sellers' properties, which may include designated in-content placements commonly referred to as engagement, outstream video, and right rail.
- ***Automated Sales with Leading Buyers Via RTB, Static Bidding, and Orders.*** Through our solution, sellers gain instant access to the world's largest automated digital advertising buyers, including approximately 350 DSPs and ad networks. Our platform offers sellers significant flexibility by enabling them to sell their advertising inventory in an automated fashion on an impression-by-impression basis, such as with RTB, in bulk, or in Orders pursuant to arrangements directly between the seller and the buyer.

- ***Integrated Solution for Digital Advertising Needs.*** We provide sellers with a single web-based interface that serves as their central location to manage, analyze, and maximize digital advertising spending from hundreds of different buyers. This centralized view allows sellers to cost-effectively optimize monetization, control workflow, run analytics, and perform other critical functions across a comprehensive range of inventory placements (Orders, RTB, and static bidding), advertising units (display and video), and channels (desktop and mobile).
- ***Significantly Streamlined Sales, Operations, and Finance Workflow.*** Our platform streamlines the management of digital advertisement sales by aggregating demand and providing a suite of software applications that automate the process of making inventory available for sale. Our expansive marketplace allows sellers to connect quickly and efficiently with hundreds of thousands of brands. Additionally, we provide a web interface that transforms time-consuming and manual order entry and processing into an automated process.
- ***Security for Brand and User Experience.*** Our platform is designed to ensure that advertisements shown on a seller website or mobile application conform to the seller's guidelines, which specify what advertisers, type of product, or type of advertisement may not be shown on the seller's website or mobile application. Our systems scan all advertisements to verify, in real time, that each advertisement is appropriate for the seller and conforms to our platform-wide advertising quality requirements.
- ***Advanced Reporting and Analytics and Actionable Insights.*** We have developed a robust set of reporting features that sellers can access and use to analyze the vast array of data we collect for them. We provide sellers with actionable insight in order to leverage that data. Using our analytics, sellers can readily gather impression data, yield optimization data, brand security data, and pricing data needed to manage their digital business effectively. For example, sellers can benefit from big-data-driven insights to understand the optimal pricing of their inventory, including setting optimal price floors for RTB auctions, and leveraging vast quantities of historical bid data to calculate the financial impact of blocking bids from certain advertisers or industry segments.
- ***Consolidated Payments and Transparent Tracking and Billing System.*** We provide consolidated billing and collection for sellers who would otherwise be required to dedicate additional resources to cost-effectively manage financial relationships with a large base of buyers.
- ***Independence.*** Some competitors working with sellers have their own owned and operated properties to which they have an incentive to give preferred treatment, which can lead to sub-optimal pricing and access for others in the market. We believe our independent market position enables us to better serve buyers and sellers because we are not burdened with any structural conflicts.
- ***Header Bidding Solution that Helps Generate Higher Revenue for Sellers Through More Efficient Allocation of Buyer Demand***. We offer a "header bidding" solution that integrates technology directly on a publisher website or mobile application to enable Rubicon Project to sit much higher in the publisher's ad stack. The innovation allows the strength and scale of our buyer demand to compete for many more of a seller's impressions, creating much higher demand, which leads to higher revenue for sellers. Similarly, we offer a solution that helps sellers to maximize revenue across advertising inventory types and sales channels by ensuring that inventory is optimally allocated between direct and indirect demand, thereby creating as much buyer demand as possible for a given impression.

Applications for Buyers. Buyers leverage our applications to access a large audience and to purchase advertising inventory based on their key demographic, economic, and timing criteria. These applications help streamline a buyer's purchasing operations and increase the efficiency of its spending and the effectiveness of its advertising campaigns. Buyers can execute highly automated campaigns and take advantage of unique targeting data and optimization technology that is provided by our platform. Buyers are also able to use unified reporting and analytics through our buyer-user interface that has been designed to specifically address buyer preferences. Our capabilities for buyers also enable advertising agencies and brand advertisers to build brand awareness, acquire new customers, and re-engage existing customers via site-based retargeting campaigns.

Buyers realize the following benefits from our platform:

- ***Direct Access to a Global Audience and Hundreds of Premium Sellers.*** By leveraging our platform, buyers can reach approximately one billion Internet users globally, including many of the world's largest and most premium sellers. Furthermore, unlike many organizations in the digital advertising industry, we have direct relationships with sellers and can enable buyers to circumvent a multistep, expensive, and inefficient process to connect to the seller.
- ***Flexible Access to Inventory.*** Our platform allows buyers to purchase advertising inventory in their preferred manner, whether by RTB, static bidding, or Orders. Our solution also has the flexibility to allow buyers to integrate their purchases on our platform through their existing buying technologies or to buy directly through our platform.

- ***Optimized Return on Investment by Consolidating Spending on One Platform.*** By concentrating more of their spending on our platform, buyers can construct a larger data set specific to our platform, which results in superior targeting and more effective campaigns over time. They also benefit from our machine-learning algorithms, which are constantly analyzing their data in order to improve the effectiveness of their campaigns. Our solution provides access to a comprehensive range of inventory placements (Orders, RTB, and static bidding), advertising units (display and video), and channels (desktop and mobile).
- ***Intent Marketing Solution for Efficiently Finding a Target Audience***. Our capabilities for buyers include a marketing solution to enable advertising agencies and brands to build brand awareness, acquire new customers, and re-engage existing customers via site-based retargeting campaigns.
- ***Ability to Automate the Direct Purchase of Fully Reserved Inventory Through our Guaranteed Orders Platform.*** Our direct orders capability enables buyers to significantly streamline the workflow associated with purchasing fully reserved inventory through our Orders platform, while leveraging their first-party data assets.
- ***Simplified Order Management and Campaign Tracking.*** By eliminating most manual steps, our applications enable buyers to efficiently manage their digital campaigns and significantly reduce the time it would otherwise take to effectively execute their digital advertising programs.
- ***Ability to Purchase Desktop and Mobile Inventory at Scale.*** As of Q4 2015, 84% of our top 100 sellers were working with Rubicon Project to monetize desktop and mobile inventory. Similarly, in Q4 2015, 99% of the largest 2,000 advertiser buyers on our platform purchased both desktop and mobile inventory through our marketplace.
- ***Transparency and Control Over Advertising Spending.*** Our platform is designed to let buyers know and control where their dollars are being spent. Buyers can easily navigate through our interface to choose the list of sellers they want to purchase inventory from and see an indicative price range that they should expect to pay.
- ***Brand Security.*** Our suite of brand-security technologies and premium seller base ensure buyers that their advertisements will appear in an environment they have pre-approved.
- ***Inventory Quality.*** We provide systems and processes to detect and minimize questionable inventory, such as non-human traffic.
- ***Independence.*** Some industry participants have incentives to isolate their viewers and deploy specialized technology for their audiences, making buyers dependent on them to reach the users of their particular websites, mobile applications, devices, or other hardware. By comparison, our platform provides access to a wide range of leading sellers globally.

Our Market Opportunity

We believe that important trends greatly enhance our market opportunity, namely the shift in advertising spending to digital advertising, the move towards automation, and the convergence of media across multiple channels, including desktop and mobile.

Rapid Growth in Digital Advertising Spending

While media consumption and time spent by consumers have shifted relatively quickly from traditional television, broadcast radio, and print to Internet, digital television, and mobile devices, the shift in advertising spending from analog and print to digital lagged initially and is still catching up. This is consistent with historical patterns, in which audience adoption of new channels has preceded the migration of advertiser spending, with that gap decreasing over time. The rapid growth in digital media consumption has driven growth in digital advertising spending, which is growing at a significantly faster rate than advertising spending on analog and print media. Furthermore, we believe that there will be continued expansion of digital advertising as advertising spending catches up to time spent on the Internet and mobile devices. According to IDC, display, mobile, and video digital advertising are forecasted to grow from approximately $73 billion in 2015 to $137 billion in 2019, a 17% compounded annual growth rate, while traditional television advertising is forecasted to grow from approximately $241 billion in 2015 to $278 billion in 2019, a 4% compounded annual growth rate. The continued growth in overall advertisement spending, and the shift in that spending to digital media to keep up with the migration of consumers, yield significant additional opportunities to monetize Internet and mobile traffic.

Increasing Demand for Automation and Real-Time Bidding

According to IDC estimates (December 2015), RTB was a $10.3 billion market in 2015 that is expected to increase to $20.5 billion by 2019, and Orders was a $3.7 billion global market in 2015 expected to grow to $34.1 billion by 2019. The compound annual growth rate for these market opportunities is 41% on a combined basis.

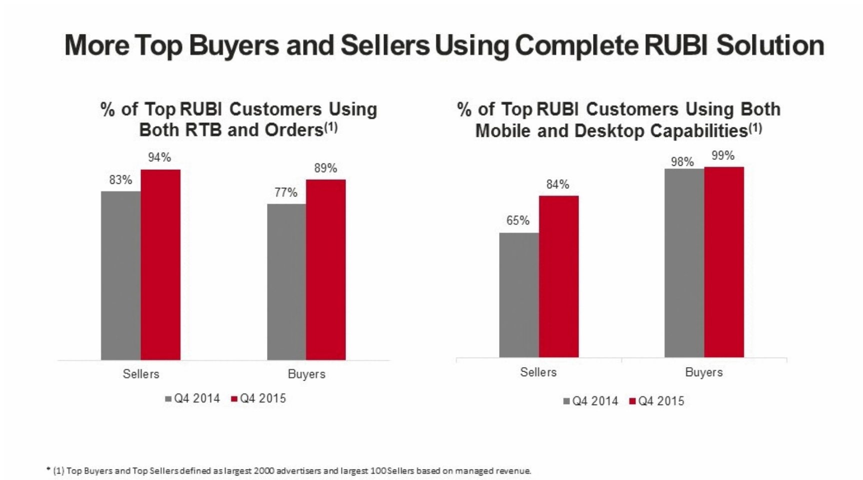
Trend Towards Automation of Analog and Print Advertising Markets

Over time, we also expect the analog and print advertising markets to automate, and we view our long-term mission, and opportunity, as the automation of the buying and selling of all advertising. We believe buyers want to be able to reach users across multiple channels and to have a platform that can unify their advertising spending. Consumption patterns for television are changing, with viewers migrating to digital channels and using multiple devices to view video programming. According to media measurement company Nielsen, television viewership is increasingly moving to the Internet, with 40% of U.S. households watching television content online via a streaming video on demand (SVOD) service such as Netflix (Nielson, The Total Audience Report: Q4 2014, March 11, 2015). At the same time, as more content is being delivered to users digitally, television and Internet content are beginning to converge, blurring the historical distinctions between analog and print media and digital media, and requiring buyers to consider their advertising strategies over multiple media. We believe these trends give us the opportunity to automate an increased portion of the larger advertising market.

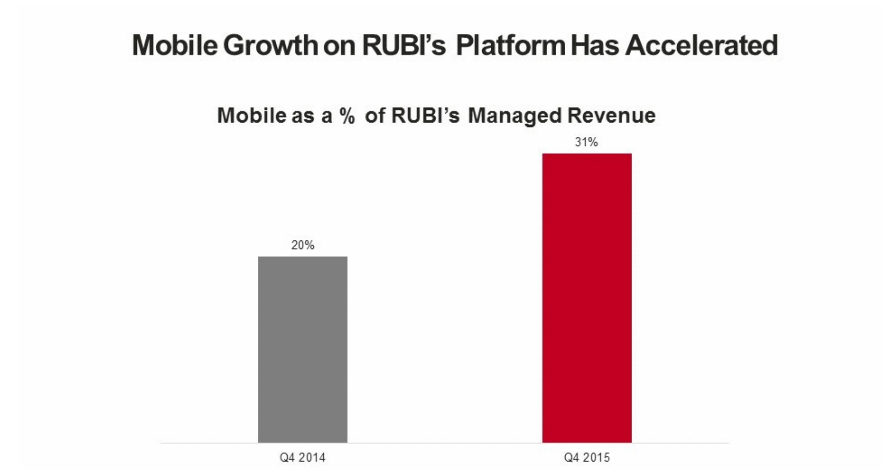
The need for automation of advertising will grow as complexity increases and as digital media continues to converge with analog and print media. While the primary market we serve today is the digital advertising market, we expect to be able to leverage our unique marketplace and technology to ultimately automate all of these markets and enhance the experience of buyers and sellers across the entire advertising ecosystem.

Demonstrated Ability to Generate Increased Managed Revenue from Buyer and Seller Customers

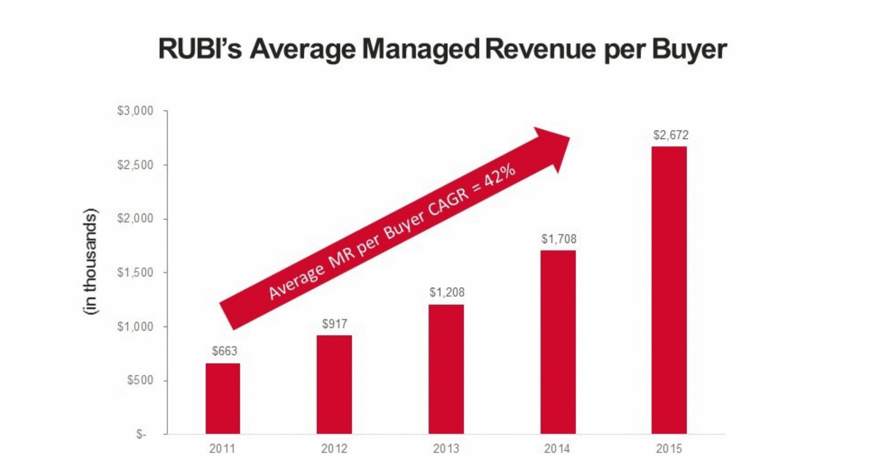
As depicted in the chart below, we have been successful in deploying different inventory types and channels to our buyer and seller customers, which have increasingly used our complete solution. Our customers have adopted more of our offerings and increased utilization of our capabilities, which has helped drive a significant increase in average managed revenue per buyer and per seller generated on our platform. We believe that our existing customers represent a source of continued revenue growth as we expand our solution.



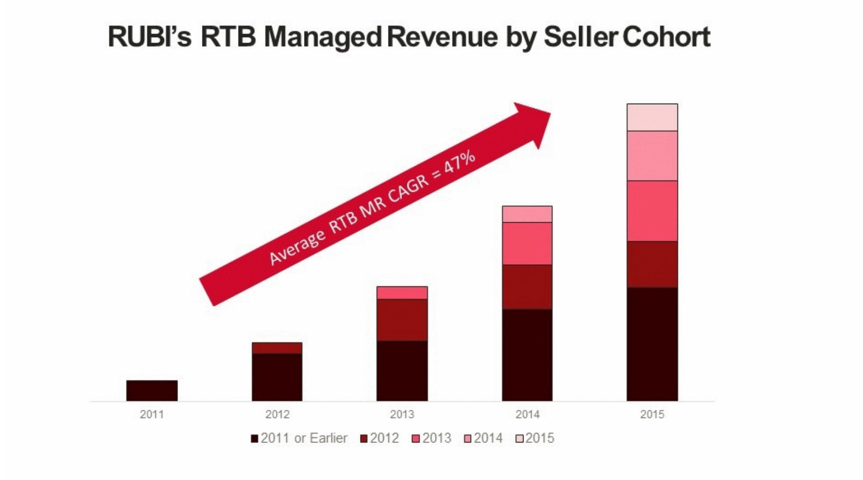
The propensity of buyer and seller customers to adopt more offerings from our solution has contributed to strong growth in our mobile managed revenue. As depicted in the chart below, mobile managed revenue has significantly expanded as a percentage of total Rubicon Project managed revenue in recent years.



As depicted in the chart below, average managed revenue per buyer on our platform has grown considerably over our history. We expect the average spending per buyer to further increase over time as buyers continue to increase their use of our solution.



Managed revenue per seller has also increased considerably throughout our history, as depicted in the image below that analyzes the growth in managed revenue for seller customer cohorts (grouped by the year the seller cohorts became a customer on our platform).



Growth Strategies

The core elements of our growth strategy include:

- ***Increasing Penetration of Our Mobile and Video Offerings into Buyers and Sellers Globally.*** We believe we can significantly expand the penetration of our fast-growing mobile and video offerings among existing buyer and seller customers and by attracting new buyer and seller customers across the globe. Consumer consumption of mobile and video content continues to rapidly increase and we see an attractive opportunity to significantly strengthen our presence as a leading global platform for enabling buyers to reach consumers with relevant mobile and video advertising via our existing sellers and by attracting new seller relationships. We intend to aggressively invest in developing additional product features and marketing initiatives to support our mobile and video growth objectives.
- ***Growing Our Business with Existing Buyers by Promoting Increased Use of Our Complete Technology Solution and Attracting New Buyers to Our Platform.*** We believe we can attract a greater portion of buyers' spending by promoting increased use of our complete technology solution featuring capabilities across a comprehensive range of inventory placements (Orders, RTB, and static bidding), ad units (display and video), and channels (desktop and mobile). We will also focus on delivering continued improvement of our matching and pricing algorithms as well as enhanced features, functionality, and service of our solution. We see an opportunity with existing buyers to offer them additional inventory to make buying more efficient on our platform. We plan to invest in our sales organization to drive increased spending by existing buyers on our platform and to attract new buyers to our platform.
- ***Increasing Penetration of Existing Sellers by Promoting Increased Use of Our Complete Technology Solution and Attracting New Sellers.*** We see an opportunity to increase the share of seller inventory that we currently monetize by promoting increased use of our complete technology solution featuring capabilities across a comprehensive range of inventory placements (Orders, RTB, and static bidding), ad units (display and video), and channels (desktop and mobile). We will also focus on enhancing our cloud and applications, offering additional applications, and increasing our relationships with buyers and sellers that engage in Orders relationships through our solution. In addition, we expect to benefit generally from the growing adoption of automation for sales of advertising inventory, particularly in the Orders market for premium inventory that is a very large global market opportunity that is predominantly a manual sales process currently. We also see an opportunity to form relationships with new sellers for which our platform offers the best solution for monetizing all types of their digital advertising inventory across mobile and desktop channels.
- ***Enhancing Our Leadership Position by Investing in Innovation and Expansion.*** We intend to build upon our current technology and extend our market leadership through innovation. Our investments will focus on improving our machine-learning algorithms, expanding further into mobile and video, data analytics, audience extension, API integration, building additional features to extend further into order management, building self-service capabilities for buyers and sellers, and enhancing and expanding our current server infrastructure.

- ***Building Our Orders Business.*** A significant portion of premium inventory is purchased and sold on a guaranteed basis. We believe that some sellers will continue to rely on their own sales forces for sales of premium inventory, but will benefit from automation to better price, match, and place campaigns, and to automate manual operations such as ad trafficking, quality assurance, and billing and collections. We have invested in workflow capabilities and automation of premium inventory transactions to enable sales teams to increase their productivity and process more sales of inventory at optimal prices. Workflow capabilities enable buyers and sellers to communicate directly and use shared data to execute campaigns. These capabilities support sales functions rather than replacing them, enhancing their adoption without friction. Buyers and sellers can also leverage their first-party data assets in our platform to increase the value of the seller's inventory and precision of the buyer's targeting efforts. We plan to build upon these investments to capitalize upon the growth we anticipate in the market for automation of direct transactions. In addition, we believe that our guaranteed orders capabilities will help to position us to automate the purchase and sale of television advertising.
- ***Expanding Our Buyer Offerings.*** The various buyers in the market, including brand advertisers, agencies, ATDs, ad networks, and DSPs, utilize a variety of inventory placements to purchase inventory. Our offering covers all primary forms of digital inventory placement, giving us the ability to serve all buyers. We intend to expand our relationships across all buyer types and inventory placements. We plan to utilize our offerings that facilitate the direct processing of transactions between buyers and sellers to increase our participation in the direct purchase of premium inventory by agencies and their advertisers through our Orders business.
- ***Accelerating Our Global Expansion and Entering New Markets.*** We currently operate globally from our offices in ten countries. We believe we can extend our marketplace platform through international expansion to help automate and improve advertising for buyers and sellers globally. In 2014, we initiated operations in Japan and we intend to grow our market share in our existing international markets. We also plan to further expand our operations in Asia and Latin America.
- ***Bringing Automation to Additional Media.*** Historically, our solution has focused on display advertising. We believe, however, that television and other analog and print media will eventually converge with existing digital channels, creating opportunities for us to expand our solution beyond digital media to analog and print media, such as television, radio, and magazines, as well as out-of-home media like billboards. We intend to extend our solution to track this convergence and support increasingly complex volumes of advertisements spanning multiple media. Our combined offering of inventory placements and advertising units may be packaged for multiple distribution channels, including mobile, desktop, and television (satellite, cable, smart TV, and set-top box). We intend to accelerate our expansion in mobile for both mobile web and mobile applications and to build the foundation to automate television advertising. In addition to platform expansion, we intend to extend beyond our current capabilities for display, video, and engagement to other forms of advertising units as they may arise.

Our Technology

To support our solution, we have developed a network of remote servers hosted on the Internet that run our proprietary software, including analytics and decision-making algorithms, and store, manage, and process rules set by buyers and sellers and data about demographics, economics, timing, and preferences. We have specially engineered a high-volume transaction processing hardware, called the Rubicube, that provides significant scale and is programmed for high-frequency, low-latency trading. This infrastructure is supported by a real-time data pipeline, a system that quickly moves volumes of data generated by our business into reporting systems that allow usage both internally and by buyers and sellers, and a 24-hour Network Operations Center, which provides failure protection by monitoring and rerouting traffic in the event of equipment failure or network performance issues between buyers and our marketplace.

We estimate that our platform currently executes up to 5 million peak queries per second and averages approximately 19 billion transactions per week, and since 2012, we have transacted over 200 trillion bid requests. It utilizes over 45,000 central processing units, which read and execute our program instructions. In addition, our platform supports more than 100 gigabytes of data transfer per second and stores more than 5.0 petabytes of data, backed by our globally distributed infrastructure hosted at data centers in the U.S., Europe, and Asia.

Our infrastructure is distributed across leased commercial data center locations in the US, Europe, and Asia to reduce latency, and its massive scale supports the volume, diversity, and complexity of buyers' bids on sellers' advertising inventory to increase market liquidity and achieves optimal pricing using our machine-learning algorithms. Our platform's architecture allows for additional scale through enhancements and additions to the infrastructure, which enables us to better evolve and adapt to the demands of buyers and sellers and remain competitive in the marketplace.

Our proprietary data-driven machine-learning algorithms enable our solution to make decisions that maximize revenue for sellers and improve return on investment for buyers. These algorithms combine and analyze multiple types of data and enable our systems to execute over 60 million decisions per second, all in time to allow transactions to be executed in milliseconds.

Decisions processed through these algorithms relate to the following types of data:

- *Pricing Metadata*—We provide information on historical pricing, bids, buyer type and buyers to determine auction winners between RTB and static bidding. This data includes approximately 9 trillion bid requests per month, 5 million peak bids per second and data from hundreds of thousands of brands and all major DSPs, ad networks, and ATDs;
- *Audience Data*—We reach approximately one billion Internet users globally. We have direct relationships with many of the world's largest and most premium sellers. This reach provides us with a large volume of data about users and audiences, such as pricing of advertisements, historical clearing prices, bid responses, what types of ads are allowed on a particular website, which sellers' websites a buyer prefers, what ad formats are available to be served, advertisement size and location, where a user is located, what users a buyer wants to target, how many ads the user has seen, browser or device information, and sellers' proprietary data about users.

Auction and security algorithms use matchmaking algorithms with both historical and real-time data to drive automated decision-making processes.

Pricing algorithms perform the following functions, among many others:

- *Impression Profiling*—to determine key data related to the impression, such as demographic data, geographic data and historical data to send to potential bidders and collect for reporting and analysis by buyers and sellers.
- *Algorithmic Pricing*—to adjust pricing for impressions based on historical bidding activity and valuation signals to increase marketplace liquidity.
- *Rules Management*—to ensure adherence to seller rules that set minimum prices for advertising inventory, determine which buyers are eligible to purchase advertising, identify buyers and categories of advertisements that are not allowed on a seller's website, mobile application or other digital media property, and specify security and other criteria.

Technology solutions that deliver value for buyers and sellers include the following, among many others:

- *FastLane*—A header bidding solution that integrates technology directly on a publisher website or mobile application to enable Rubicon Project to compete for a greater proportion of seller's impressions than without header bidding.
- *Exchange API*—Helps sellers to maximize revenue across all types of advertising inventory and sales channels by ensuring that inventory is optimally allocated between direct and indirect demand, thereby creating as much buyer demand as possible for a given impression.
- *Mobile SDK*—Our mobile software development kit (SDK) is a code embedded in a mobile application that performs advertising technology functions within the mobile application, including collecting and displaying ad content, handling device interactions and enhancing the user experience through ad quality intelligence. Advertising formats supported by our SDK include rich media, video and engagement. Our SDK also supports our FastLane header bidding solution that is designed to maximize demand for available impressions.
- *Buyer Bidder*—Our buyer bidder allows advertising agencies and brands to connect buyers with their target audience through branding, new customer acquisition and site retargeting campaigns. Our bidder evaluates large volumes of intent marketing data (that is continuously updated in milliseconds) in order to execute buys on highly targeted consumer audiences with intention of providing the highest likelihood of achieving the advertisers' campaign objectives.

Proprietary protection technologies we have developed include:

- *Protective Screening*—Helps protect sellers and users from malware (software that can infect computers with malicious software), checks advertisements delivered through our solution for the presence of any malicious or questionable activity or characteristics, screens for unsanctioned advertisements, and reduces recurrence.
- *AdCheq*—Reviews and categorizes advertisement creatives so that our systems can automatically enforce each seller's specific advertisement quality policies.
- *PubCheq* - Leverages a variety of proprietary and third party data sources to evaluate and categorize websites and mobile applications, score inventory quality and guide the company's inventory quality team. Maintains a comprehensive database of all inventory reviewed by internal systems and teams and powers a global blacklist that blocks fraudulent or otherwise problematic seller properties from entering the Rubicon Project marketplace.
- *Brand Security Dashboard*—Provides visibility into quality-related activity, showing how different buyers behave relating to advertisement quality, details on the level of malware threats, and data leakage reporting (shows questionable activity related to third parties gathering data on their inventory).
- *Vantage*—An extension for Web browsers that lets sellers monitor ads served in context on their sites, providing insight, diagnostic applications, and ad-quality controls.
- *Creative Approval API*—A programmatic interface that sellers can use to retrieve a comprehensive set of individual advertising creatives that have bid or served on their sites, and instruct our delivery systems to approve or reject those creatives for future impressions.

Bid efficiency algorithms provide bid prediction (which buyers are most likely to bid on a given impression) and throttling (the volume of bid requests a given buyer can process), to optimize infrastructure load and execute transactions in the most timely manner possible by only sending bid requests to those buyers of advertising inventory who can handle the volume and are likely to respond.

Technology and Development

Innovation is key to our success. In addition to the substantial investments we make in improving and extending our technology, we have developed a research and development center through which we invest in exploratory concepts. In addition, our core technology and development team is responsible for the design, development, maintenance, and operation of our platform. Our technology and development process emphasizes frequent, iterative, and incremental development cycles, and we typically release improvements and new features weekly. Within the technology and development team, we have several highly aligned, independent sub-teams that focus on particular features of our platform. Each of these sub-teams includes engineers, quality assurance specialists, and product developers responsible for the initial and ongoing development of each sub-team's feature. In addition, the technology and development team includes our technical operations sub-team, which is responsible for the performance and capacity of our platform. While our sub-teams operate independently, the combined work is coordinated by our project management team, which manages dependencies and optimizes the schedule of the entire team towards common goals.

Technology and development expenses are included in both cost of revenue and technology and development on our consolidated statements of operations. These combined expenses, excluding amounts paid to sellers, were $79.4 million, $43.5 million and $34.0 million for the years ended December 31, 2015, 2014, and 2013, respectively. Amounts paid to sellers were $21.2 million for the year ended December 31, 2015. Before our acquisition of Chango in April 2015 and our resulting Buyer Cloud integration, we recorded all revenue on a net basis and therefore payments to sellers were not included in cost of revenue for the years ended December 31, 2014 and 2013. We believe that continued investment in our platform, including its technologies and functionalities, is critical to our success and long-term growth. We therefore expect technology and development expenses to increase as we continue to invest in technology infrastructure to support an increased volume of advertising spending on our platform and international expansion, as well as to expand our engineering and technology teams to maintain and support our technology and development efforts. We also intend to invest in new and enhanced technologies and functionalities to enhance our platform and further automate our business processes with the goal of enhancing our future profitability.

Sales and Marketing

We sell our solution to buyers and sellers through our global direct sales team, which operates from various locations around the world. This team leverages its market knowledge and expertise to demonstrate the benefits to buyers and sellers of advertising automation and our solution. We deploy a professional services team with each seller integration to ensure that a seller extracts the most value from our solution. We are focused on managing our brand, increasing market awareness, and generating new advertising campaigns. To do so, we often present at industry conferences, create custom events, and invest in public relations. In addition, our marketing team advertises online, in print, and in other forms of media, creates case studies, sponsors research, authors whitepapers, publishes marketing collateral, generates blog posts, and undertakes customer research studies.

Our Competition

Our industry is highly competitive and fragmented. We compete for buyer spending against many digital media companies, including Google and Facebook. We compete for advertising inventory with supply side platforms, or SSPs, and advertising exchanges, also including Google. As we introduce new offerings, as our existing offerings evolve, or as other companies introduce new products and services, we may be subject to additional competition.

We compete for advertising spending and seller inventory made available on our platform. Our offering must remain competitive in terms of scope, ease of use, scalability, speed, brand security, customer service, and other technological features that assist buyers in increasing the return on their advertising investment. We compete for digital advertising inventory based on our ability to maximize the value of sellers' inventory, provide the greatest array of product components covering their various inventory types, and increase fill rates. We compete on the basis of our technology and the competitive strengths described above, including our ability to enable buyers and sellers to purchase and sell a comprehensive range of advertising units (including display and video), utilizing various inventory types (including direct sale of premium inventory on a guaranteed or non-guaranteed basis, real-time bidding, and static bidding), and across digital channels (including mobile web, mobile application, and desktop). While our industry is evolving rapidly and becoming increasingly competitive, we believe that our solution enables us to compete favorably on the factors described above. However, competitive differentiation is difficult to achieve, both in terms of capabilities and in terms of customer perception. We lack the scale of some of our competitors, which may have the ability to compete effectively with us on the basis of their capabilities or ability to offer more aggressive pricing. Other competitors with capabilities inferior to ours may nevertheless compete effectively with us if customers do not perceive, or value, what we believe to be our competitive advantages.

Our Team and Culture

Our management team consists of founders of ad serving and paid search companies, as well as RTB pioneers, and our team draws from a broad spectrum of experience, including data science, artificial intelligence, machine-learning algorithms, auctions, infrastructure, and software development.

We focus heavily upon developing and maintaining a company culture that supports our goals, and we manage our culture like a product, with a dedicated product manager, budget, measurement, and roadmap. We have a goal of building and growing a truly unique company, focused on the automation of advertising and solving problems through innovation, both internally and for buyers and sellers, to help deliver value. We strive to make our company an exciting place to work, not just a "job." We reward team and individual excellence and constantly strive to build a stronger, more innovative team and a consistent culture across all our locations.

As of December 31, 2015, we had 699 full-time employees, of whom 496 were in the United States, 306 were in sales and marketing functions, 248 were in technology and development, and 145 were in general and administrative functions.

Our Intellectual Property

Our proprietary technologies are an important component of our success, and we rely upon trade secret, trademark, copyright, and patent laws in the United States and abroad to establish and protect our intellectual property and protect our proprietary technologies.

We have seven issued U.S. patents, as described below. Additionally, we have nine pending patent applications in the United States and two pending non-U.S. patent applications. None of these patents has been litigated and we are not licensing any of the patents. Their importance to our business is uncertain and there are no guarantees that any of the patents will serve as protection for our technology or market in the United States or any other country in which an application has been filed. Our seven issued U.S. patents include: U.S. Patent No. 8,472,728, titled System and Method for Identifying and Characterizing Content within Electronic Files Using Example Sets, issued on June 25, 2013; U.S. Patent No. 8,473,346, titled Ad Network Optimization System and Method Thereof, issued on June 25, 2013; U.S. Patent No. 8,554,683, titled Content Security for Real-Time Bidding, issued on October 8, 2013; U.S. Patent No. 8,831,987, titled Managing Bids in a Real-Time Auction for Advertisements, issued on September 9, 2014; U.S. Patent No. 9,076,151, titled Graphical Certifications of Online Advertisements Intended to Impact Click-Through Rates, issued on July 7, 2015; U.S. Patent No. 9,202,248, titled Ad Matching System and Method Thereof, issued on December 1, 2015; and U.S. Patent No. 9,208,507, titled Ad Network Optimization System and Method, issued on December 8, 2015.

We register certain domain names, trademarks and service marks in the United States and in certain locations outside the United States. We also rely upon common law protection for certain trademarks. We generally enter into confidentiality and invention assignment agreements with our employees and contractors, and confidentiality agreements with parties with whom we conduct business, in order to limit access to, and disclosure and use of, our proprietary information. We also use measures designed to control access to our technology and proprietary information. We view our trade secrets and know-how as a significant component of our intellectual property assets, which we believe differentiate us from our competitors.

Any impairment of our intellectual property rights, or any unauthorized disclosure or use of our intellectual property or technology, could harm our business, our ability to compete and our operating results.

Customer Dynamics

While we serve many customers, certain buyers and sellers account for a large share of business transacted through our platform.

On the buy-side of our business, while demand for advertising is diffuse, spending by advertisers on digital advertising has historically been channeled through intermediaries, including principally advertising agencies and DSPs, both of which are important to us. We have generated a majority of our revenue through RTB, and most RTB inventory purchases are executed by a relatively small number of DSPs that have the bidding technologies, data assets, and client bases necessary to enable them to execute RTB purchases at scale on behalf of their clients. We have relationships with almost all of these major DSPs, but because there are relatively few of them, each of these relationships is important to us because it represents a source of demand that would be difficult for us to replace. Similarly, the majority of spending to date on our Orders product has been by a relatively small number of advertising agencies. Creating new agency relationships and expanding our business with existing agency customers is important to our growth, and loss of any agency customers would adversely affect our Orders business. We are working to develop relationships directly with advertisers, both to provide them with direct access to advertising inventory to supplement their DSP and agency relationships, and also to encourage them to influence their DSPs and agencies to route their spending through our platform.

On the sell-side of our business, while we work with many customers, a relatively small number of them provide a large share of the unique user audiences accessible by buyers. In addition, most of the application providers that make inventory available through our platform utilize SDKs and other proprietary technology of third parties, such as aggregators, and it is those third parties, not the application providers themselves, that contract with us to help monetize the inventory. Termination or diminution of our relationships with these third parties could result in a material reduction of the amount of mobile inventory available through our platform. We encourage application developers to use our own SDK, but it is difficult to displace existing SDKs.

Our contracts with buyers and sellers generally do not provide for any minimum volumes and may be terminated on relatively short notice. Buyer and seller needs and plans can change quickly, and buyers and sellers are free to terminate their arrangements with us or direct their spending and inventory to competing sources of inventory and demand, quickly and without penalty. Loss of a major buyer would represent direct loss of fees charged to that buyer for its spending, and loss of a major seller representing a unique audience would result in direct loss of fees charged to that seller for sale of that seller’s inventory. In addition, just as growth in the inventory strengthens buyer activity in a network effect, loss of unique inventory or substantial buyers could degrade our marketplace. Loss of major DSP sources of demand could adversely affect bid density or pricing in our RTB auctions, and reduction in seller fees if we are not able to redirect inventory to other demand sources. Loss of important unique inventory could reduce buyer fees that cannot be shifted to other sellers.

Because of these factors, we seek to expand and diversify our customer relationships. However, the number of large media buyers and sellers in the market is finite, and it could be difficult for us to replace the losses from any buyers or sellers whose relationships with us diminish or terminate.

Geographic Scope of Our Operations

In addition to the United States, we have significant personnel and operations in Canada, England, France, and Australia, and additional personnel and operations in Germany, Italy, Japan, Singapore, and Brazil. As of December 31, 2015, 203 of our 699 employees were based outside the United States.

Our international operations and expansion plans expose us to various risks. International operations require significant investment in developing the technology infrastructure necessary to deliver our solution and establishing sales, delivery, support, and administrative capabilities in the countries where we operate. We face staffing challenges, including difficulty in recruiting, retaining, and managing a diverse and distributed workforce across time zones, cultures, and languages. We must also adapt our practices to satisfy local requirements and standards (including differing privacy requirements that are sometimes more stringent than in the U.S.), and manage the effects of global and regional recessions and economic and political instability. Transactions denominated in various non-U.S. currencies expose us to potentially unfavorable changes in exchange rates and added transaction costs. Foreign operations expose us to potentially adverse tax consequences in the United States and abroad and costs and restrictions affecting the repatriation of funds to the United States.

In the years ended December 31, 2015, 2014, and 2013, approximately 31%, 42%, and 39%, respectively, of our revenue was generated from international markets, and approximately 35%, 42%, and 40%, respectively, of our managed revenue was generated from international markets based on the location of our sellers. With the exception of approximately $40.9 million in intangible assets in Canada, substantially all of our assets are U.S. assets. Excluding Canada, our non-U.S. subsidiaries and operations perform primarily sales and service functions.

User Reach

It is not practicable to determine the exact number of unique users we reach because we do not collect personally identifiable information. In order to estimate our user reach, we start with data we track on devices we see through our platform in a given time period: for web browsers, we identify each combination of browser user agent and originating IP address, and for mobile application users, we identify unique device identifiers. The resulting aggregated total counts some devices more than once because the same device creates different user agent and IP address combinations by using different browsers to access the internet and/or accessing the internet from locations with different IP addresses. We therefore make assumptions about the amount of duplication, as well as assumptions about the average numbers of devices per person, which can vary by geography and over time, and apply these assumptions to estimate of the number of users we reach. Following this methodology, we estimate that we reach approximately 1 billion users globally through our platform. This figure depends upon our assumptions and is therefore inherently imprecise and may differ from third-party estimates of our reach.

Regulation

Interest-based advertising, or the use of data to draw inferences about a user's interests and deliver relevant advertising to that user, has come under increasing scrutiny by legislative, regulatory, and self-regulatory bodies in the United States and abroad that focus on consumer protection or data privacy. In particular, this scrutiny has focused on the use of cookies and other technology to collect or aggregate information about Internet users' online browsing activity. Because we, and our customers, rely upon large volumes of such data collected primarily through cookies, it is essential that we monitor developments in this area domestically and globally, and engage in responsible privacy practices, including providing consumers with notice of the types of data we collect and how we use that data to provide our services.

We provide this notice through our privacy policy, which can be found on our website at http://www.rubiconproject.com/privacy. As stated in our privacy policy, we do not collect information, such as name, address, or phone number, that can be used directly to identify a real person, and we take steps not to collect and store such personally identifiable information from any source. Instead, we rely on non-personally identifiable information about Internet users and do not attempt to associate this data with other data that can be used to identify real people. However, we typically do collect and store IP addresses, geo-location information, and persistent identifiers that or may be considered personal data in some jurisdictions or otherwise may be the subject of future legislation or regulation. The definition of personally identifiable information, or personal data, varies by country, and continues to evolve in ways that may require us to adapt our practices to avoid violating laws or regulations related to the collection, storage, and use of consumer data. For example, some European countries consider IP addresses or unique device identifiers to be personal data subject to heightened legal and regulatory requirements, whereas the United States does not. As a result, our technology platform and business practices must be assessed regularly in each country in which we do business.

There are also a number of specific laws and regulations governing the collection and use of certain types of consumer data relevant to our business. For example, the Children's Online Privacy Protection Act, or COPPA, imposes restrictions on the collection and use of data about users of child-directed websites. To comply with COPPA, we have taken various steps to implement a system that: (i) flags seller-identified child-directed sites to buyers, (ii) limits advertisers' ability to serve interest-based advertisements, (iii) helps limit the types of information that our advertisers have access to when placing advertisements on child-directed sites, and (iv) limits the data that we collect and use on such child-directed sites.

The use and transfer of personal data in EU member states is currently governed under the EU Data Protection Directive, which generally prohibits the transfer of personal data of EU subjects outside of the EU, unless the party exporting the data from the EU implements a compliance mechanism designed to ensure that the receiving party will adequately protect such data. A recent opinion by the Court of Justice of the European Union concluded that the Safe Harbor Framework we previously relied upon is not sufficient to allow transfers of personal data of EU subjects to the United States. Therefore, we must rely on alternative compliance measures, which are complex, which may also be subject to legal challenge, and which, unlike the Safe Harbor Framework, directly subject us to regulatory enforcement by data protection authorities located in the European Union. In addition, the European Union has finalized a General Data Protection Regulation, or GDPR, that will become effective sometime in 2018. The GDPR sets out higher potential liabilities for certain data protection violations, as well as a greater compliance burden for us in the course of delivering our solution in Europe; among other requirements, the GDPR obligates companies that process large amounts of personal data about EU residents to implement a number of formal processes and policies reviewing and documenting the privacy implications of the development, acquisition, or use of all new products, technologies, or types of data. Further, the European Union has indicated that it intends to propose reforms to the EU Cookie Directive governing the use of technologies to collect consumer information.

Additionally, our compliance with our privacy policy and our general consumer privacy practices are also subject to review by the Federal Trade Commission, which may bring enforcement actions to challenge allegedly unfair and deceptive trade practices, including the violation of privacy policies and representations therein. Certain State Attorneys General may also bring enforcement actions based on comparable state laws. Outside of the United States, our privacy and data practices are subject to regulation by data protection authorities and other regulators in the countries in which we do business.

Beyond laws and regulations, we are also members of self-regulatory bodies that impose additional requirements related to the collection, use, and disclosure of consumer data, including the Internet Advertising Bureau, or IAB, the Digital Advertising Alliance, the Network Advertising Initiative, and the Europe Interactive Digital Advertising Alliance. Under the requirements of these self-regulatory bodies, in addition to other compliance obligations, we provide consumers with notice via our privacy policy about our use of cookies and other technologies to collect consumer data, and of our collection and use of consumer data to deliver interest-based advertisements. We also allow consumers to opt-out from the use of data we collect for purposes of interest-based advertising through a mechanism on our website, linked through our privacy policy.

Business Seasonality

Our managed revenue, revenue, cash flow from operations, Adjusted EBITDA, operating results, and other key operating and financial measures may vary from quarter to quarter due to the seasonal nature of buyer spending. For example, many buyers devote a disproportionate amount of their advertising budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing. We expect our revenue, cash flow, operating results and other key operating and financial measures to fluctuate based on seasonal factors from period to period and expect these measures to be higher in the fourth quarters than in prior quarters.

Working Capital Requirements

Our revenue is generated from advertising spending transacted over our platform using our technology solution. Generally, we invoice and collect from buyers the full purchase price for impressions they have purchased, retain our fees (where applicable), and remit the balance to sellers. However, in some cases, we may be required to pay sellers for impressions delivered before we have collected, or even if we are unable to collect, from the buyer of those impressions. There can be no assurances that we will not experience bad debt in the future. Any such write-offs for bad debt could have a materially negative effect on our results of operations for the periods in which the write-offs occur. In addition, we attempt to coordinate collections from our buyers so as to fund our payment obligations to our sellers. However, some buyers and sellers are beginning to require direct billing and collection arrangements between themselves, particularly for our Guaranteed Orders solution. Further, growth and increased competitive pressure in the digital advertising industry is causing brand spenders to become more demanding, resulting in overall increased focus by all industry participants on pricing, transparency, and cash and collection cycles. Some buyers have experienced financial pressures that have motivated them to challenge some details of our invoices or to slow the timing of their payments to us. If buyers slow their payments to us or our cash collections are significantly diminished as a result of these dynamics, our revenue and/or cash flow could be adversely affected and we may need to use working capital to fund our accounts payable pending collection from the buyers. This may result in additional costs and cause us to forego or defer other more productive uses of that working capital.

Available Information

The Company is subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and accordingly files Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy statements, and related amendments and other information with the Securities and Exchange Commission, or the SEC, pursuant to Sections 13(a) and 15(d) of the Exchange Act. Information filed by the Company with the SEC is available free of charge on the Company's website at investor.rubiconproject.com as soon as reasonably practicable after such materials are filed with or furnished to the SEC. The public may read and copy any materials filed by the Company with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549 on official business days during the hours of 10:00 am to 3:00 pm. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov. The contents of these websites are not incorporated into this Annual Report on Form 10-K or into any other report or document we file with the SEC, and any references to the URLs for these websites are intended to be inactive textual references only.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk, including the risks described below, each of which may be relevant to decisions regarding an investment in or ownership of our stock. The occurrence of any of these 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 the risks set forth below and the other information contained in this report, including our 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. However, this report cannot anticipate and fully address all possible risks of investing in our common stock, and the risks of investing in our common stock may change over time. Accordingly, you are advised to consider additional sources of information and exercise your own judgment in addition to the information we provide.

Risks Relating to Our Business, Growth Prospects and Operating Results

We must grow rapidly to remain a market leader and to accomplish our strategic objectives. If we fail to grow, or fail to manage our growth effectively, the value of our company may decline.

The advertising technology market is dynamic, and our success depends upon the continued adoption of advertising automation and our ability to develop innovative new technologies and solutions for the evolving needs of sellers of advertising, including websites, applications, and other digital media property owners, and buyers of advertising. We also need to grow significantly and expand the scope of our offering in order to keep pace with the growth and change in our market and to develop the market reach and scale necessary to compete effectively with large competitors. This growth depends to a significant degree upon the quality of our strategic vision and planning. The advertising market is evolving rapidly, and if we make strategic errors, there is a significant risk that we will lose our competitive position and be unable to recover and achieve our objectives. Our ability to grow requires access to, and prudent deployment of, capital for hiring, expansion of physical infrastructure to run our solution, acquisition of companies or technologies, and development and integration of supporting technical, sales, marketing, finance, administrative, and managerial infrastructure. Further, the rapid growth we are pursuing will itself strain the organization and our ability to continue that growth and to maintain the quality of our operations.

In order to meet our growth objectives, we will need to rely upon our ability to innovate, the continued adoption of our solution by buyers and sellers for higher value advertising inventory, the extension of the reach of our solution into evolving digital media, continued growth into new geographic markets, and the implementation of new offerings.

We expect our historical online desktop display advertising business to continue to be an important source of revenue for us, but in order for us to compete effectively and keep pace with industry growth rates, we must also grow aggressively in other areas of digital advertising, such as mobile and video. Our growth plans depend upon our ability to innovate, attract buyers and sellers to our solution for purposes of buying and selling higher value inventory, expand the scope of our solution and its use by buyers and sellers utilizing other digital media platforms and advertising units, and adapt the pricing and other terms we make available in response to changing market conditions. Our growth plans also depend on our ability to further increase our international business in existing and new markets, significantly expand the use of our private marketplace offerings, and effectively drive increasing automation in the advertising industry through implementation of new offerings. In order to innovate successfully, we must hire, train, motivate, and retain talented engineers in a competitive recruiting environment, and we must deploy them based on the development priorities we establish in light of our view of the future of our industry. Mobile, video, and other emerging digital platforms require different technology and business expertise than display advertising, and also present other challenges that may be difficult for us to overcome, including inventory quality issues. Many of our competitors in these emerging platforms have a significant head start in terms of technology, buyer or seller relationships, and the scope of their product offerings. Furthermore, a growing percentage of online and mobile advertising spending is captured by owned and operated sites (such as Facebook and Google), where we are unable to participate. Our business model may not translate well into higher-value advertising due to market resistance or other factors, and we may not be able to innovate quickly or successfully enough to compete effectively on new platforms, or to adapt our solution and infrastructure to international markets. New offerings may not correctly anticipate market demand, may not address demand as effectively as competing offerings, and may not deliver the results we expect.

Our technology development efforts may be inefficient or ineffective, which may impair our ability to attract buyers and sellers.

Our future success will depend in part upon our ability to enhance our existing solution, to develop and introduce competing new solutions in a timely manner with features and pricing that meet changing client and market requirements, and to persuade buyers and sellers to adopt our new solutions. New elements of our offering must compete with established competitors and may require significant investment in development and marketing to achieve parity, and buyers and sellers may not be ready to adopt new solutions we acquire or develop. We schedule and prioritize these development efforts according to a variety of factors, including our perceptions of market trends, client requirements, and resource availability. We face intense competition in the marketplace and are confronted by rapidly changing technology, evolving industry standards and consumer needs, and the frequent introduction of new solutions by our competitors that we must adapt and respond to. Our solutions are complex and can require a significant investment of time and resources to develop, test, introduce into use, and enhance. These activities can take longer than we expect. We may encounter unanticipated difficulties that require us to re-direct or scale back our efforts and we may need to modify our plans in response to changes in buyer and seller requirements, market demands, resource availability, regulatory requirements or other factors. If development of our solution becomes significantly more expensive due to changes in regulatory requirements or industry practices, or other factors, we may find ourselves at a disadvantage to larger competitors with more resources to devote to development. These factors place significant demands upon our engineering organization, require complex planning and decision making, and can result in acceleration of some initiatives and delay of others. If we do not manage our development efforts efficiently and effectively, we may fail to produce, or timely produce, solutions that respond appropriately to the needs of buyers and sellers, and competitors may develop offerings that more successfully anticipate market evolution and address market expectations. If our solution is not responsive and competitive, buyers and sellers can be expected to shift their business to competing solutions. Buyers and sellers may also resist adopting our new solutions for various reasons, including reluctance to disrupt existing relationships and business practices or to invest in necessary technological integration or preference for competitors’ offerings or self-developed capabilities.

We must scale our technology infrastructure to support our growth and transaction volumes. If we fail to do so, we may lose buyers, sellers, and revenue from transactions.

When a user visits a website or uses an application where our auctions technology is integrated, our technology must process a transaction for that seller and conduct an auction within milliseconds, often among hundreds of buyers and hundreds of thousands of brands. Our technology must scale to process all the advertising impressions from the collection of all visitors of all websites and applications offered on our platform. Additionally, for each individual advertising impression, our technology must be able to send bid requests to appropriate and available buyers. It must perform these transactions end-to-end at speeds often faster than the page or application loads for the user. The addition of new services, support of evolving advertising formats, handling and use of increasing amounts of data, and overall growth also place increasing demands upon our technology infrastructure. The growth of mobile device usage is significantly increasing volume demands on our infrastructure. We must be able to continue to increase the capacity of our platform in order to support substantial increases in the number of buyers and sellers, to support an increasing variety of advertising formats and platforms and to maintain a stable service infrastructure and reliable service delivery, all to support the network effect of our solution. If we are unable, for cost or other reasons, to effectively increase the scale of our platform to support and manage a substantial increase in the number of transactions, as well as a substantial increase in the amount of data we process, on a high-performance, cost-effective basis, the quality of our services could decline and our reputation and business could be seriously harmed. In addition, if we are not able to continue processing these transactions at fast enough speeds or if we are unable to support emerging advertising formats or services preferred by buyers, we may be unable to obtain new buyers or sellers, we may lose existing buyers or sellers, or we could lose revenue from failure to process auction transactions in a timely manner, any of which could cause our revenue to decline. We expect to continue to invest in our platform in order to meet increasing demand. Such investment may negatively affect our profitability and results of operations, or cause dilution to our stockholders.

Our belief that there is significant and growing demand for private marketplaces and automated guaranteed solutions may be inaccurate, and we may not realize a return from our investments in that area.

We believe there is significant and growing demand for private marketplaces and automated guaranteed solutions, and we have made significant investments to meet that demand through internal development efforts and through acquisitions. We believe our technology will be embraced by the market and contribute in a meaningful way to our revenue growth. However, the market for these solutions is new and unproven and may not grow as we expect, or it could have slow adoption rates for various reasons, including reluctance of some sellers to substitute our solution for transactions they have historically handled themselves through direct dealings with buyers. It is our expectation that private marketplaces and automated guaranteed solutions may involve lower fees than we can charge for our real-time bidding services, which may not be fully offset by anticipated higher CPMs. In some cases, we have experienced fee pressure as we have built out our private marketplace offering, and we expect this fee pressure to increase as more competitors, including new entrants as well as sellers themselves, build their own technology and infrastructure to enter this business. Even if the market for these solutions develops as we anticipate, buyers and sellers might not embrace our offerings to the degree we expect due to various factors. For example, we may not be successful in building out these offerings consistent with our vision, or competitive offerings may be offered at lower prices or be perceived as having better features and functionality. Advertising agency buyers may require that their use of our automated guaranteed solution to make inventory purchases take place through established workflow applications they own or license from third parties, and if we are required to work with third parties to access agency demand, we will be required to pay them fees or share with them the revenue generated by transactions processed through their applications, reducing the profitability of this business for us. If those third-party applications are not compatible with our technology, or providers of the applications demand unreasonable terms to integrate, our ability to transact automated guaranteed purchases with those agencies may be limited, which could reduce the revenue we anticipate flowing through this solution. We may also be unable to scale our solution to markets outside of the United States due to local currency or other specific regulatory or operational requirements that we are unable to comply with. Even if the market for these solutions develops as we anticipate, and our buyers and sellers embrace our offerings, the positive effect of our private marketplace and automated guaranteed offerings on our results of operations may be negated by other adverse developments or by similar offerings from our competitors.

Our expectations regarding the growth prospects of the intent marketing business may be incorrect, and we may not realize a return from our investments in that area.

In order to increase the demand on our platform, we are making significant investments in our intent marketing business, including through our acquisition in April 2015 of Chango. Inc. Our strategy is based upon various assumptions and expectations, including continued growth in the intent marketing business, acceleration in the development of our Orders business, our ability to build retargeting, CPC, and CPA capabilities utilizing technologies acquired from Chango, synergies between Chango’s brand and agency clients and our clients, our ability to continue to develop Chango’s data and other technologies in response to evolving market requirements, and our ability to leverage our platform to take advantage of Chango’s business model, including pricing and products.

The intent marketing business may grow slower than anticipated, and we may not benefit from growth in the market to the degree expected due to stronger offerings by competitors, pricing pressures, or other factors. Until we are able to scale the intent marketing business, it may be vulnerable to loss of, or reduction in spending by, larger buyers. We compete for demand with well-established companies that have technological advantages stemming from their experience in the market, and we must continue to adapt and improve our demand technology, including the technology we acquired from Chango, to compete effectively. Client demands for transparency and pricing concessions have increased significantly, and more quickly than we previously expected, reducing our take rate in some transactions with demand sources and requiring us to adapt our intent marketing business model. We believe that our buyer cloud take rates will continue to decline over time due to increasing demand for pricing transparency and general competitive pressures. Even if the market develops as anticipated, buyers and sellers may not embrace our combined offerings due to various factors, and Chango's historical success in its market may be more difficult to translate to our client base and infrastructure than anticipated, making synergies elusive. Market practices and regulation related to data capture and use are complex and evolving, and development or enforcement of restrictions could make it difficult for us to achieve or sustain data-driven competitive advantages. In addition, growth in our intent marketing business may cause some of our legacy clients to perceive us as a competitor for brand or agency clients and therefore reduce their business with us.

We have invested heavily in our mobile technology, which poses additional risks that did not affect our legacy display business. Mobile connected devices or any other devices, their operating systems, Internet browsers or content distribution channels, including those controlled by our competitors, may develop in ways that make it difficult for advertisements to be delivered to their users. Further, we rely upon relationships with third parties to provide our buyers with access to large numbers of mobile inventory sellers that utilize third-party technology to display ads. If our access to mobile inventory is limited by third-party technology or lack of direct relationships with mobile sellers, our ability to grow our business will be impaired.

Due to increased usage of mobile devices and resulting migration of ad spending to mobile platforms, we have invested heavily in our mobile technology and are relying to a significant degree on our mobile offerings to fuel our continued growth. The mobile advertising market is growing and changing quickly, and technological, market, or regulatory developments could render our solutions less competitive. Because mobile advertising uses different data capture techniques and methods of recording payable transactions, caters to different buyer budgets, may require us to enter emerging markets in which we have less experience, including China, and involves development challenges imposed by differing technological requirements and standards, there can be no assurance that we will be successful in achieving our goals in this market. Moreover, buyers' spending to reach consumers through mobile advertising may evolve more slowly than expected, or not grow to levels we anticipate. Our mobile investment has been focused on real-time bidding of mobile impressions, and that market may not grow as we expect. Our mobile revenue growth is largely dependent on the success of our new Exchange API technology, and there can be no assurance that this technology will continue to work as anticipated, without costly bugs or errors. Our success in the mobile channel depends upon the ability of our technology solution to provide advertising for most mobile connected devices, as well as the major operating systems or Internet browsers that run on them and the thousands of applications that are downloaded onto them. The design of mobile devices and operating systems, applications, or Internet browsers is controlled by third parties. These parties frequently introduce new devices and applications, and from time to time they may introduce new operating systems or Internet browsers or modify existing ones in ways that may significantly affect our business, such as by providing ad-blocking capabilities. Network carriers may also impact the ability to access specified content on mobile devices. If our solution is unable to work on these devices, operating systems, applications, or Internet browsers for any reason, our ability to generate revenue through mobile advertising could be significantly harmed.

Our growth depends upon our ability to attract and retain buyers and sellers and increase business with them. Buyers and sellers are free to direct their spending and inventory to competing sources of inventory and demand, and large competitors with direct mobile user relationships and proprietary first-party user data have invested early and heavily in mobile advertising solutions, have many established relationships with mobile buyers and sellers that may be difficult for us to replicate, and may provide more compelling solutions than we do. Most of the application providers selling inventory through our platform utilize SDKs and other proprietary technology of third parties, such as aggregators, and it is those third parties, not the application providers themselves, that contract with us to provide exchange services to help monetize the inventory. Termination or diminution of our relationships with these third parties could result in rapid and significant reduction of the amount of mobile inventory available through our platform, which in turn would adversely affect our mobile managed revenue and growth prospects.

Market pressure may result in a reduction in spending on our platform or a reduction in the fees or prices we are able to charge on our platform, which could have a material adverse effect on our business and reduce our take rate.

Our proprietary auction algorithms include a buyer fee for use of our technology, and we have typically charged buyers a variable price for real-time bidding impressions without specifying the amount or method of determination of the fee that is included in the price. We also charge fees to sellers for use of our technology, typically as a percentage of the cost of media. As is normal in most industries and companies, the introduction of new offerings requires different pricing rates or structures. Projecting a market's acceptance of a new price or structure is imperfect and we may price too high or too low, both of which may carry adverse consequences. Although we believe our pricing is competitive, we experience requests from buyers and sellers for discounts, fee concessions or revisions, rebates, and greater levels of pricing transparency and specificity. In addition, we may decide to offer discounts or other pricing concessions in order to attract more inventory or demand.

In addition to the fee-based business we have historically conducted with buyers that purchase through our auction platform, with our acquisition of Chango we commenced an intent marketing offering by which we offer buyers dynamic CPM pricing for inventory acquisition in support of their advertising campaigns. In lieu of charging fees for this service, our model has been to attempt to acquire inventory for buyers at prices that satisfy their campaign objectives while allowing us to retain a margin. This business is more risky than our fee-based model but also offers opportunities for greater margins. However, as a result of competitive pressure and growing demands for pricing transparency and fee concessions throughout the advertising technology business, we have begun to experience some margin compression in this part of our business.

If large buyers or sellers, or large numbers of small buyers or sellers, are able to compel us to charge lower fees or provide fee concessions or refunds, or to reveal or reduce our margins in intent marketing transactions, we may not be able to maintain appropriate volumes of inventory supply and demand without agreeing to these concessions. We also may face the risk that, where a buyer is dissatisfied with the execution of a transaction on our platform, a buyer may request a refund from us of the advertising spending on the transaction notwithstanding that we have only collected a fee on the transaction and may not have the ability to recover the full amount of spending associated with the transaction from the counter party. In addition, the fees we charge and margins we earn are likely to change in response to evolution in the market, customer demands, market opportunities, new products, or competitive pressure. If we cannot maintain and grow our revenue and profitability through volume increases that compensate for any price reductions, or if we are forced to make significant fee concessions or refunds, or if buyers reduce spending with us due to fee disputes or pricing issues, our revenue, take rate, the value of our business, and the price of our stock could be adversely affected.

We have a history of losses and may not achieve or sustain profitability in the future.

We reported net income of $0.4 million during the year ended December 31, 2015. We incurred net losses of $18.7 million and $9.2 million during the years ended December 31, 2014 and 2013, respectively. As of December 31, 2015, we had an accumulated deficit of $80.3 million. We may not be able to sustain the revenue growth we have experienced in recent periods, and revenue may decrease due to competitive pressures, maturation of our business, or other factors. Our expenses have increased with our revenue growth, primarily due to substantial investments in our business. Our historical revenue growth should not be considered as indicative of our future performance. We expect our expenses to continue to increase substantially in the foreseeable future as we continue to expand our business, including by hiring engineering, sales, marketing, and related support employees in existing and new territories, investing in our technology and infrastructure, and developing additional digital media platforms, such as mobile and video. Accordingly, we may not be able to achieve or sustain profitability in the future. If our revenue growth declines or our expenses exceed expectations, our financial performance will be adversely affected.

Our limited operating history makes it difficult to evaluate our business and prospects and may increase the risks associated with an investment in our common stock.

We were incorporated in 2007 and consequently have only a limited operating history upon which our business and future prospects may be evaluated. We may not be able to sustain the rate of growth we have achieved to date, or even maintain our current revenue levels. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly evolving industries, including allocating and making effective use of our limited resources; achieving market acceptance of our existing and future solutions; competing against companies with greater financial and technical resources; integrating, motivating, and retaining qualified employees; developing relationships with buyers and sellers; developing new solutions; recruiting, integrating new technologies or companies we acquire; and establishing and maintaining our corporate infrastructure, including internal controls relating to our financial and information technology systems. We must improve our current operational infrastructure and technology to support significant growth and to respond to the evolution of our market and competitors' developments. Our business prospects depend in large part on our ability to:

- build and maintain our reputation for innovation and solutions that meet the evolving needs of buyers and sellers;
- distinguish ourselves from the wide variety of solutions available in our industry;

- maintain and expand our relationships with buyers and sellers;
- respond to evolving industry standards and government regulations that impact our business, particularly in the areas of data collection and consumer privacy;
- prevent or otherwise mitigate failures or breaches of security or privacy;
- attract, hire, integrate and retain qualified employees;
- effectively execute upon our international expansion plans;
- evaluate new acquisition targets, and successfully integrate acquired companies' business and technologies;
- grow our share of online and mobile ad spending and the supply of advertising impressions available to us notwithstanding the growing share of online impressions that is controlled by owned and operated sites (such as Facebook and Google) who may not make their advertising inventory available to us;
- maintain our cloud-based technology solution continuously without interruption 24 hours a day, seven days a week; and
- anticipate and respond to varying product life cycles, regularly enhance our existing advertising solutions, and introduce new advertising solutions and pricing models on a timely basis, including by developing our capabilities in evolving areas of the business, such as mobile and video.

There is no assurance that we will meet these and other challenges.

As a result of various factors, our operating results may fluctuate significantly, be difficult to predict, and fall below analysts' and investors' expectations.

Our operating results may be difficult to predict, particularly because we generally do not have long-term contracts with buyers or sellers. We have from time to time experienced significant variations in revenue and operating results from period to period. Our operating results may continue to fluctuate and be difficult to predict due to a number of factors, including:

- seasonality in demand for digital advertising;
- changes in pricing of advertising inventory or pricing for our solutions and our competitors' offerings, including potential reductions in our pricing and overall take rate as a result of competitive pressure, changes in supply, improvements in technology and extension of automation to higher-value inventory, uncertainty regarding rate of adoption, changes in the allocation of demand spend by buyers, changes in revenue mix, auction dynamics, pricing discussions or negotiations with clients and potential clients, and other factors;
- diversification of our revenue mix to include new services, some of which may have lower pricing than our historic lower-value inventory business or may cannibalize existing business;
- the addition or loss of buyers or sellers;
- changes in the advertising strategies or budgets or financial condition of advertisers;
- the performance of our technology and the cost, timeliness and results of our technology innovation efforts;
- advertising technology and digital media industry conditions and the overall demand for advertising, or changes and uncertainty in the regulatory environment for us or buyers or sellers, including with respect to privacy regulation;
- the introduction of new technologies or service offerings by our competitors and market acceptance of such technologies or services;
- our level of expenses, including investment required to support our technology development, scale our technology infrastructure and business expansion efforts, including acquisitions, hiring and capital expenditures, or expenses related to litigation;
- the impact of changes in our stock price on valuation of stock-based compensation, warrants or other instruments that are marked to market;
- the effect of our efforts to maintain the quality of transactions on our platform, including the blocking of non-human inventory and traffic, which could cause a reduction in our revenue if there are fewer transactions consummated through our platform even though the overall quality of the transactions may have improved;
- the effectiveness of our financial and information technology infrastructure and controls;
- foreign exchange rate fluctuations; and

- changes in accounting policies and principles and the significant judgments and estimates made by management in the application of these policies and principles.

Because significant portions of our expenses are relatively fixed, variation in our quarterly revenue could cause significant variations in operating results and resulting stock price volatility from quarter to quarter. In order to minimize adverse effects of pricing pressure on revenue, we must increase our scale and add more high-value inventory, which requires ongoing investment that can have an adverse effect at the expense of earnings and might ultimately be unsuccessful. Period-to-period comparisons of our historical results of operations are not necessarily meaningful, and historical operating results may not be indicative of future performance. If our revenue or operating results fall below the expectations of investors or securities analysts, or below any guidance we may provide to the market, the price of our common stock could decline substantially.

Our revenue and operating results are highly dependent on the overall demand for advertising. Factors that affect the amount of advertising spending, such as economic downturns, particularly in the fourth quarter, can make it difficult to predict our revenue and could adversely affect our business.

Our business depends on the overall demand for advertising and on the economic health of our current and prospective sellers and buyers. If advertisers reduce their overall advertising spending, our revenue and results of operations are directly affected. Economic downturns or instability in political or market conditions generally may cause current or new advertisers to reduce their advertising budgets. Reductions in inventory due to loss of sellers would make our solution less robust and attractive to buyers. Adverse economic conditions and general uncertainty about economic recovery or growth, particularly in North America and Europe, where we do most of our business, are likely to affect our business prospects. Many advertisers devote a disproportionate amount of their advertising budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing, and buyers may spend more in the fourth quarter for budget reasons. As a result, any events that reduce the amount of advertising spending during the fourth quarter, or reduce the amount of inventory available to buyers during that period, could have a disproportionate adverse effect on our revenue and operating results for that fiscal year. Moreover, any changes in the favorable tax treatment of advertising expenses and the deductibility thereof would likely cause a reduction in advertising demand. In addition, continued geopolitical turmoil in many parts of the world have and may continue to put pressure on global economic conditions, which could lead to reduced spending on advertising.

Seasonal fluctuations in digital advertising activity, which may historically have been less apparent due to our historical revenue growth, could adversely affect our cash flows and operating results.

Our managed revenue, revenue, cash flow from operations, operating results and other key performance measures may vary from quarter to quarter due to the seasonal nature of advertiser spending. For example, many advertisers devote a disproportionate amount of their advertising budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing. Moreover, advertising inventory in the fourth quarter may be more expensive due to increased demand for advertising inventory. Seasonal fluctuations historically have been less apparent due to our historical revenue growth, but if our growth rate declines or seasonal spending becomes more pronounced, seasonality could result in material fluctuations of our revenue, cash flow, operating results and other key performance measures from period to period.

Our corporate culture has contributed to our success, and if we cannot successfully maintain our culture as we assimilate new employees, we could lose the innovation, creativity and teamwork fostered by our culture.

We are undergoing rapid growth, including in our employee headcount. As of December 31, 2015, we had 699 employees. A significant portion of our management team joined us in 2013. We expect that significant additional hiring will be necessary to support our strategic plans, including increased hiring in other countries. We have in the past added significant numbers of employees through acquisitions, including as a result of our acquisition of Chango in April 2015, and we may continue to do so. This rapid influx of large numbers of people from different business and geographic backgrounds may make it difficult for us to maintain our corporate culture. If our culture is negatively affected, our ability to support our growth and innovation may diminish.

Risks Related to the Advertising Technology Industry, Market, and Competition

The digital advertising market is relatively new, dependent on growth in various digital advertising channels, and vulnerable to adverse public perceptions and increased regulatory responses. If this market develops more slowly or differently than we expect, or if issues encountered by other participants or the industry generally are imputed to or affect us, our business, growth prospects and financial condition would be adversely affected.

The digital advertising market is relatively new and our solution may not achieve or sustain high levels of demand and market acceptance. While desktop display advertising has been used successfully for many years, marketing via new digital advertising channels, such as mobile and social media, and digital video advertising, is emerging and may evolve in unexpected ways, and our future growth will be constrained if we are not able to adapt successfully to market evolution. In addition, the success of our efforts to advance new solutions for increased advertising automation will depend upon adoption of our solution by personnel at buyers and sellers in lieu of their traditional methods of order placement. It is difficult to predict adoption rates, demand for our solution, the future growth rate and size of the digital advertising solutions market or the entry of competitive solutions.

Further, the digital advertising industry is complex, and evolving, and there are relatively few publicly traded companies operating in the business. Consequently, the digital advertising industry may not be as widely followed or understood in the financial markets as more mature industries. Problems experienced by one industry participant (even private companies) or issues affecting a part of the business have the potential to have adverse effects on other participants in the industry or even the entire industry. Emerging understanding of how the digital advertising industry operates has spurred privacy concerns and misgivings about exploitation of consumer information and prompted regulatory responses that limit operational flexibility and impose compliance costs upon industry participants. As a general matter the digital advertising business is relatively new and market understanding of digital advertising companies and their specific product and service offerings is not fully evolved. The markets may not fully appreciate our particular place in the industry and our strengths and differentiating factors.

Any expansion of the market for digital advertising solutions depends on a number of factors, including social and regulatory acceptance, the growth of the digital advertising market, the growth of social, mobile and video as advertising channels, and the actual or perceived technological viability, quality, cost, performance and value associated with emerging digital advertising solutions. If demand for digital display advertising and adoption of automation does not continue to grow, or if digital advertising solutions or advertising automation do not achieve widespread adoption, or there is a reduction in demand for digital advertising caused by weakening economic conditions, decreases in corporate spending, quality, viewability, malware issues or other issues associated with buyers, advertising channels or inventory, negative perceptions of digital advertising, additional regulatory requirements, or other factors, or if we fail to develop or acquire capabilities to meet the evolving business and regulatory requirements and needs of buyers and sellers of multi-channel advertising, our competitive position will be weakened.

We operate in an intensely competitive market that includes companies that have greater financial, technical and marketing resources than we do.

We face intense competition in the marketplace. We are confronted by rapidly changing technology, evolving user needs and the frequent introduction by our competitors of new and enhanced solutions. We compete for advertising spending against competitors that, in some cases, are also buyers and/or sellers on our platform. We also compete for supply of advertising inventory against a variety of competitors. Some of our existing and potential competitors are better established, benefit from greater name recognition, may have offerings and technology that we do not have or that are more evolved and established than ours, and have significantly more financial, technical, sales, and marketing resources than we do. In addition, some competitors, particularly those with a more diversified revenue base and a broader offering, may have greater flexibility than we do to compete aggressively on the basis of price and other contract terms, or to compete with us by including in their product offerings services that we may not provide. Some competitors are able or willing to agree to contract terms that expose them to risks that might be more appropriately allocated to buyers or sellers of advertising (including inventory risk and the risk of having to pay sellers for unsold advertising impressions), and in order to compete effectively we might need to accommodate risks that could be difficult to manage or insure against. Some buyers that use our solution, and some potential buyers, have their own relationships with sellers and can directly connect advertisers with sellers, and many sellers are investing in capabilities that enable them to connect more effectively directly with buyers. Our business may suffer to the extent that buyers and sellers purchase and sell advertising inventory directly from one another or through intermediaries other than us. In addition, as a result of solutions introduced by us or our competitors, our marketplace will experience disruptions and changes in business models, which may result in our loss of buyers or sellers. Our innovation efforts may lead us to introduce new solutions that compete with our existing solutions. New or stronger competitors may emerge through acquisitions and industry consolidation or through development of disruptive technologies. If our offerings are not perceived as competitively differentiated, due to competition and growth in our industry or our failure to develop adequately to meet market evolution, we could lose clients and market share or be compelled to reduce our prices, making it more difficult to grow our business profitably.

There has been rapid evolution and consolidation in the advertising technology industry, and we expect these trends to continue, thereby increasing the capabilities and competitive posture of larger companies, particularly those that are already dominant in various ways, and enabling new or stronger competitors to emerge. For example, while we are investing to participate in the shift of digital advertising spending to mobile channels, the mobile advertising market is dominated by a relatively small number of large competitors with direct mobile user relationships and proprietary first-party user data. These competitors have invested early and heavily in mobile advertising solutions that may be more compelling than ours, and have many established relationships with buyers and sellers that may be difficult for us to replicate. Similar dynamics can be expected as growth in digital video advertising brings established broadcast and content companies into the digital advertising business.

As technology continues to improve and market factors continue to compel investment by others in the business, competition and pricing pressure may increase and market saturation may change the competitive landscape in favor of larger competitors with greater scale and broader offerings, including those that can afford to spend more than we can to grow more quickly and strengthen their competitive position through innovation, development and acquisitions. In order to compete effectively, we may need to innovate, further differentiate our offerings, and expand the scope of our operations more quickly than would be feasible through our own internal efforts. However, because some capabilities may reside only in a small number of companies, our ability to accomplish necessary expansion through acquisitions may be limited because available companies may not wish to be acquired or may be acquired by larger competitors with the resources to outbid us, or we may need to pay substantial premiums to acquire those businesses. Our ability to make strategic acquisitions could also be hampered if the value of our stock, which we might seek to use as acquisition currency, is viewed negatively by an acquisition target, and the lower our stock price, the more dilution we will incur as a result of stock-based acquisitions.

Many buyers and sellers are large consolidated organizations that may need to acquire other companies in order to grow. Smaller buyers and sellers may need to consolidate in order to compete effectively. There is a finite number of large buyers and sellers in our target markets, and any consolidation of buyers or sellers may give the resulting enterprises greater bargaining power or result in the loss of buyers and sellers that use our platform, and thus reduce our potential base of buyers and sellers, each of which would lead to erosion of our revenue.

Our business depends on our ability to collect and use data to deliver advertisements, and to disclose data relating to the performance of advertisements. Any limitation imposed on our collection, use or disclosure of this data could significantly diminish the value of our solution and cause us to lose sellers, buyers, and revenue.

As we process transactions through our solutions, we are able to collect significant amounts of information about advertisements, their buyers and sellers, and the transactions in which they are placed. This includes buyer and seller preferences and requirements for media and advertisement content and specifications such as placement, size and format; pricing of advertisements; and auction activity such as price floors, bidding bid response behavior, and clearing prices. We also are able to collect non-personal information about users, including browser or device location and characteristics; online behavior; exposure to and interaction with advertisements; and inferential data about purchase intentions and preferences. We collect this data through various means, including from our own systems, pixels that sellers allow us to place on their websites to track user visits, software development kits installed in mobile applications, and cookies (which are discussed below). Our sellers and buyers also may provide us with their proprietary data about users.

We aggregate this data over trillions of advertising impressions and analyze it in order to optimize our services, including the pricing, placement and scheduling of advertisements purchased by buyers across the advertising inventory provided by sellers. We also share this data, or analyses based upon the data, with clients as part of our services. Our ability to collect, use, and share data about advertising purchase and sale transactions and user behavior and interaction with content is critical to the value of our services, and any limitation on our data practices could impair our ability to deliver effective solutions that meet the needs of sellers and buyers of advertising, resulting in loss of volume and reduced pricing.

Much of the data we collect and use belongs to our buyers or sellers, and we use it with their consent. (Other data is subject to control by Internet users, either as a result of regulation or through choices such as behavioral advertising opt-outs or use of ad blocking technologies, as discussed below). Although our sellers and buyers generally permit us to aggregate and use data from advertising placements, subject to certain restrictions, sellers or buyers might decide to restrict our collection or use of their data. There could be various reasons for this, including perceptions by buyers that their data can be used by sellers to extract higher prices for impressions, or perceptions by sellers that their data can be used by buyers to bid tactically to reduce pricing for impressions. As a result, for example, sellers might not agree to provide us with data generated by interactions with the content on their properties, or buyers might not agree to allow us to analyze bid responses. Buyers and Sellers may also request that we discontinue using data obtained from their transactions that has already been aggregated with other data. It would be difficult, if not impossible, and costly to comply with such requests. In addition, interruptions, failures, defects, or other challenges in our data collection, mining, analysis, and storage systems could also limit our ability to aggregate and analyze the data from transactions effected through our solution. As consumers continue to increase their use of digital technology and to incorporate multiple devices into their lives, linking and using data across such devices will become increasingly important. Various challenges affect our ability to link data relating to discrete devices, including different technologies used in different platforms, increased user awareness and sensitivity regarding use of data about their device usage, and evolving regulatory and self-regulatory standards. These challenges may slow growth, and if we are not able to cope with these challenges as effectively as other companies, we will be competitively disadvantaged. Any limitation on our ability to collect data about user behavior and interaction with content could make it more difficult for us to deliver effective solutions that meet the needs of sellers and buyers.

If the use of cookies is restricted or subject to unfavorable regulation, or cookies are replaced by alternative tracking mechanisms, our performance may decline and we may lose buyers and revenue.

We primarily use "cookies," or small text files placed through an Internet browser on an Internet user's computer, to gather data to enable our solution to be more effective. Our cookies record non-personally identifiable information, such as when an Internet user views or clicks on an advertisement, where a user is located, how many advertisements the user has seen, and browser or device information. We may also receive information from cookies placed by buyers or other parties who give us permission to use their cookies. We use data from cookies to help buyers decide whether to bid on, and how to price, an opportunity to place an advertisement in a certain location, at a given time, in front of a particular Internet user. Without cookie data, transactions occurring through our solution would be executed with less insight into activity that has taken place through an Internet user's browser, reducing the ability of buyers to make accurate decisions about which inventory to purchase for an advertising campaign. This could make placement of advertising through our solution less valuable, with commensurate reduction in pricing. If our ability to use cookies is limited, we may be required to develop or obtain additional applications and technologies to compensate for the lack of cookie data, which could be time consuming to develop or costly to obtain, less effective than our current use of cookies, and subject to additional regulation.

Cookies are an important component of our ability to provide a satisfactory offering to our customers, and our continued use of cookies is vulnerable to actions by sellers of inventory, consumers, and regulators. For example, the European Union, or EU, Cookie Directive directs EU member states to ensure that Internet users consent to storing or accessing information on their devices, such as through a cookie. Because we lack a direct relationship with Internet users, we rely on our sellers, both practically and contractually, to obtain such consent. Some EU member states have interpreted the Cookie Directive to require sellers to provide increasingly granular data to end users about cookies placed in the course of delivering an advertisement, including cookies placed by us, or by buyers using our technology, in order to obtain effective consent. Providing this granular level of data may be difficult, and in some cases where a buyer is non-responsive or recalcitrant, may not be possible. Further, such disclosures may conflict with data provisions in our contracts with buyers and sellers designed to protect information the buyer deems to be confidential or proprietary, or may require us to impose additional contractual requirements on buyers or sellers. As a result, these types of disclosure requirements, as well as any other limitations on our or our buyers' ability to place or use third party cookies, may impair our ability to provide services in certain jurisdictions.

Separately, some prominent sellers have announced intentions to discontinue the use of cookies, and to develop alternative methods and mechanisms for tracking web users. It is possible that these companies may rely on proprietary algorithms or statistical methods to track web users without cookies, or may utilize log-in credentials entered by users into other web properties owned by these companies, such as their digital email services, to track web usage, including usage across multiple devices, without cookies. Alternatively, such companies may build different and potentially proprietary user tracking methods into their widely-used web browsers.

If cookies are effectively replaced by proprietary alternatives, our continued reliance upon cookie-based methods may face negative consumer sentiment and otherwise place us at a competitive disadvantage, compelling us to develop or license alternative proprietary tracking methodologies. Development would take time, potentially subjecting us to competitive disadvantages, and require substantial investment from us. Development also may not be commercially feasible given our relatively small size, the fact that development of such technologies may require technical skills that differ from our core engineering competencies, and the likelihood that the market would adopt solutions developed by larger competitors. Licensing new proprietary tracking mechanisms and data from companies that have developed them may not be viable for us for various reasons; creators of such technology may compete with us and may offer to provide the technology to us only on unfavorable terms or not at all, and if proprietary web tracking standards are owned by sellers or browser operators that have access to user information by virtue of their popular consumer-oriented websites or browsers and design their technology for use in conjunction with the types of user information collected from their websites, we may still be at a competitive disadvantage even if we license their technology.

If cookies are effectively replaced by open industry-wide tracking standards rather than proprietary standards, we may still incur substantial re-engineering costs to replace cookies with these new tracking technologies. This may also diminish the quality or value of our services to buyers if such new web-tracking technologies do not provide us with the quality or timeliness of the tracking data that we currently generate from cookies.

If the use of "third-party cookies" or digital advertising generally is rejected by Internet users, through opt-out or ad-blocking technologies or other means, or if other consumer choice mechanisms like "Do Not Track" and "Limit Ad Tracking" inhibit our ability to collect and use data about end users, our performance may decline and we may lose buyers and revenue.

Internet users can, with increasing ease, implement practices or technologies that may limit our ability to collect and use data to deliver advertisements, or otherwise inhibit the effectiveness of our solution. First, cookies may easily be deleted or blocked by Internet users. All of the most commonly used Internet browsers allow Internet users to modify their browser settings to block first-party cookies (placed directly by the publisher or website owner that the user intends to interact with) or third-party cookies (placed by parties, like Rubicon Project, that have no direct relationship with the user), and some browsers, such as Safari, may block third-party cookies by default. Most browsers also now support temporary privacy modes that allow the user to suspend, with a single click, the placement of new cookies or reading or updates of existing cookies. Many applications and other devices allow users to avoid receiving advertisements by paying for subscriptions or other downloads. Mobile devices based upon the Android and iOS operating systems limit the ability of cookies to track users while they are using other applications other than their web browser on their device. As a consequence, fewer of our cookies or sellers' cookies may be set in browsers or accessible in mobile devices, which would adversely affect our business.

Second, some Internet users also download free or paid "ad blocking" software, not only for privacy reasons, such as a desire to avoid being targeted for ads based upon location or online activity, but also to counteract the adverse effect advertisements can have on users' experience, including increased load times, data consumption, and screen overcrowding. Similar ad-blocking technology has also recently emerged for mobile devices. Such ad-blocking technology may prevent certain third-party cookies from being stored on a user's computer or mobile device. If more Internet users adopt these measures, our business could be harmed. Estimates of the use of ad-blocking technologies vary by user population, type of media content, geography, and other factors, and the ultimate prevalence and effect of ad-blocking technologies is not certain, but it could have an adverse effect on our business if it reduces the volume or effectiveness (and therefore value) of advertising. In addition, some ad blocking technologies block only ads that are targeted through use of third-party data, while allowing ads based on first-party data (i.e. data owned by the provider of the website or application being viewed). These ad blockers could place us at a disadvantage because we rely on third-party data, while large competitors have troves of first-party data they use to direct advertising. Other technologies allow ads that are deemed "acceptable," which could be defined in ways that place us or our clients at a disadvantage, particularly if such technologies are controlled or influenced by our competitors. Even if ad blockers do not ultimately have a material impact on our business, investor concerns about ad blockers could cause our stock price to decline.

Increased prevalence of ad blocking has prompted examination of the effect of digital advertising industry practices upon the quality of user experiences, and changes in industry practices may emerge as a result. Such changes could reduce the viability of our existing business model, place us at a competitive disadvantage, or require us to invest significantly in developing new technologies and business practices.

Third, current versions of the most widely used web browsers allow users to send “Do Not Track” signals to indicate that they do not wish to have their web usage tracked. However, there is currently no definition of “tracking” and no standards regarding how to respond to a “Do Not Track” preference that are accepted or standardized in the industry. The World Wide Web Consortium, or W3C, chartered a “Tracking Protection Working Group” in 2011 to convene a multi-stakeholder group of academics, thought leaders, companies, industry groups and consumer advocacy organizations to create a voluntary “Do Not Track” standard for the web. The W3C is continuing to work on a policy specification that will provide guidance as to how websites and buyers should respond to a “Do Not Track” signal. The W3C’s current draft policy specification, which has not yet been finalized, allows first parties to continue to track users, even if the users have enabled the “Do Not Track” signal in their web browser. At the same time, the draft policy specification would prevent third parties, like us, from any further tracking of such users across the Internet. This policy specification has not been finalized, and it remains unclear to what extent that specification will be accepted by legislators and regulators worldwide. Nonetheless, if we are required to respond to “Do Not Track” signals as required by the W3C’s current draft policy specification, we may be placed at a significant competitive disadvantage compared to first-party data owners such as large website operators, many of whom own or are developing or acquiring capabilities that compete with our solutions.

Even absent an industry standard, various government authorities have indicated an intent to implement some type of “Do Not Track” standard. For example, the Federal Trade Commission, or FTC, and the European Commission, which proposes legislation to the European Parliament, have previously stated that they will pursue a legislative solution if the industry does not agree to a standard. Additionally, the “Do Not Track Online Act of 2015” was recently introduced in the US Senate, and members of the U.S. House of Representatives have also issued public statements supporting the idea of a legislative solution. Such legislation or regulation may affect our ability to collect or use data collected through our platform when a user enables “Do Not Track,” and may also include a distinction between first-party and third party collection and usage of data, similar to the distinction in the W3C’s current draft policy specification, which may impact our ability to compete in the marketplace.

The California Online Privacy Protection Act of 2003 requires operators of websites or online services to disclose how the operator responds to “Do Not Track” signals regarding the collection of personally identifiable information about an individual consumer’s online activities over time and across third-party websites or online services, as well as to disclose whether third parties may collect personally identifiable information about an individual consumer’s online activities over time and across different websites or online services. It is possible that other states or the U.S. government could adopt similar legislation. While we do not collect data that is traditionally considered personally identifiable information in the United States without user consent, we may nonetheless elect to respond to such legislation by adopting a policy to discontinue profiling or web tracking in response to “Do Not Track” requests, and it is possible that we could in the future be prohibited from using non-personal consumer data by industry standards or state or federal legislation, which may diminish our ability to optimize and target advertisements and the value of our services.

Fourth, in addition to *“*Do Not Track*”* options, certain mobile devices allow users to *“*Limit Ad Tracking*”* on their devices. Like *“*Do Not Track,*”* *“*Limit Ad Tracking*”* is a signal that is sent by particular mobile devices when a user chooses to send such a signal. While there is no clear guidance on how third parties must respond upon receiving such a signal, it is possible that buyers, sellers, regulators, or future legislation may dictate a response that would limit our access to data, and consequently negatively impact the effectiveness of our solution and the value of our services on mobile devices.

Legislation and regulation of digital businesses, including privacy and data protection regimes, could create unexpected additional costs, subject us to enforcement actions for compliance failures, or cause us to change our technology solution or business model, which may have an adverse effect on the demand for our solution.

Many local, state, national, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer, and other processing of data collected from and about consumers and devices, and the regulatory framework for privacy issues is evolving worldwide. Various U.S. and foreign governments, consumer agencies, self-regulatory bodies, and public advocacy groups have called for new regulation directed at the digital advertising industry in particular, and we expect to see an increase in legislation and regulation related to the collection and use of data to target advertisements and communicate with consumers, including mobile device and cross-device data, geo-location data, anonymous Internet user data and unique device identifiers, such as IP address or mobile advertising identifiers, and the collection of data from apps and websites that are directed to children. Such legislation or regulation could affect the costs of doing business online and may adversely affect the demand for or effectiveness and value of our solution. Some of our competitors may have more access to lobbyists or governmental officials and may use such access to effect statutory or regulatory changes in a manner that commercially harms us while favoring their solutions.

The U.S. government, including the FTC and the Department of Commerce, has announced that it is reviewing the need for greater regulation of the collection of consumer information, including regulation aimed at restricting some targeted advertising practices. For example, the U.S. Senate is currently considering enacting the Location Privacy Protection Act, which would place significant restrictions on the collection and use of geo-location data, including for advertising purposes. More recently, the FTC has announced that it plans to issue guidance on the tracking and delivery of targeted advertisements to consumers across multiple devices. The FTC has also adopted revisions to the Children's Online Privacy Protection Act that expand liability for the collection of information (including certain anonymous information such as persistent identifiers) by operators of websites and other online services that are directed to children or that otherwise use (for certain purposes) information collected from or about children. In addition, the European Union has finalized a General Data Protection Regulation ("GDPR") that will supersede the EU Data Protection Directive. The GDPR sets out higher potential liabilities for certain data protection violations, as well as a greater compliance burden for us in the course of delivering our solutions in Europe. Further, the European Union has indicated that it intends to propose reforms to the EU Cookie Directive governing the use of technologies to collect consumer information. Complying with any new regulatory requirements could force us to incur substantial costs or require us to change our business practices in a manner that could reduce our revenue or compromise our ability to effectively pursue our growth strategy.

Additionally, although we do not currently collect from consumers data that is traditionally considered personal data in the United States, such as names, contact information, or financial or health data in the ordinary course of providing our solution (except to the limited extent personal data is voluntarily submitted by a user or collected by us with the user's knowledge and consent), we typically do collect and store IP addresses, geo-location information, and persistent identifiers. Some of this data are or may be considered personal data in some jurisdictions or otherwise may be the subject of future legislation or regulation. For example, some jurisdictions in the EU already regard IP addresses and unique device identifiers as personal data, and certain regulators, like the California Attorney General's Office, have advocated for including IP addresses, GPS-level geolocation data, and unique device identifiers as personal data under California law. Evolving definitions of personal data, within the EU, the United States and elsewhere, especially relating to the classification of IP addresses, geo-location data, and persistent identifiers, may cause us in the future to change our business practices, diminish the quality of our data and the value of our solution, and hamper our ability to expand our offerings into the EU or other jurisdictions outside of the United States. They might likewise result in additional regulatory, legislative or public scrutiny, including investigations.

Further, many governments are restricting the storage of information about individuals beyond their national borders. Such restrictions could, depending upon their scope, limit our ability to utilize technology infrastructure consolidation, redundancy, and load-balancing techniques, resulting in increased infrastructure costs, decreased operational efficiencies and performance, and potentially a greater risk of system failure.

We strive to comply with all applicable laws and regulations relating to privacy and data collection processing, use and disclosure, but these laws and regulations are continually evolving, not always clear, and not always consistent across the jurisdictions in which we do business. The measures we take to protect the security of information that we collect, use, and disclose in the operation of our business may not always be effective. Our failure to protect, and comply with applicable laws and regulations or industry standards applicable to, personal data or other data relating to consumers could result in enforcement action against us, including fines, imprisonment of our officers, and public censure, claims for damages by consumers and other affected individuals, damage to our reputation, and loss of goodwill. This is particularly true given that the FTC, Attorneys General of various U.S. States and various international regulators (including numerous data protection authorities in the European Union), have specifically cited as enforcement priorities certain practices that relate to digital advertising. Even the perception of concerns relating to our collection, use, disclosure, and retention of data, including our security measures applicable to the data we collect, whether or not valid, may harm our reputation and inhibit adoption of our solution by current and future buyers and sellers. We are aware of ongoing lawsuits filed against, or regulatory investigations into, companies in the digital advertising industry concerning various alleged violations of consumer protection, data protection, and computer crime laws, asserting various privacy-related theories. Any such proceedings brought against us could hurt our reputation, force us to spend significant amounts in defense of these proceedings, distract our management, increase our costs of doing business, adversely affect the demand for our services, and ultimately result in the imposition of monetary liability or restrictions on our ability to conduct our business. We may also be contractually liable to indemnify and hold harmless buyers or sellers from the costs or consequences of litigation or regulatory investigations resulting from using our services or from the disclosure of confidential information, which could damage our reputation among our current and potential sellers or buyers, require significant expenditures of capital and other resources and cause us to lose business and revenue.

Further, privacy and other regulatory violations by other participants in the digital advertising ecosystem could lead to increased regulatory and enforcement activities, reductions in the growth of demand for digital advertising, and increased user requirements, all of which could have adverse consequences and impose additional costs for all industry participants, including us.

The EU's recently finalized General Data Protection Regulation, which restricts the transfer of personal data of EU residents to the United States, as well as the Court of Justice of the European Union's recent opinion invalidating the EU-U.S. Safe Harbor which previously allowed the transfer of such personal data to the United States, could require us to adopt costly compliance mechanisms, subject us to increased regulatory scrutiny, and hamper our plans to expand our business in Europe.

The use and transfer of personal data in EU member states is currently governed under Directive 95/46/EC (which is commonly referred to as the Data Protection Directive) as well as legislation adopted in the member states to implement the Data Protection Directive. The Data Protection Directive generally prohibits the transfer of personal data of EU subjects outside of the EU, unless the party exporting the data from the EU implements a compliance mechanism designed to ensure that the receiving party will adequately protect such data. One such compliance mechanism was the process agreed to by the EU and the United States known as the EU-U.S. Safe Harbor Framework, pursuant to which U.S. businesses certified that they treat the personal data of EU residents in accordance with privacy principles promulgated by the Data Protection Directive.

We previously relied upon the Safe Harbor Framework to allow us to transfer certain personal data of EU Subjects, including both data about our employees and consumer data that is collected and processed through our technology, to the United States. Recently, however, the Court of Justice of the European Union issued an opinion concluding that the Safe Harbor Framework is not sufficient to allow transfers of personal data of EU subjects to the United States. Therefore, we can no longer rely on the Safe Harbor Framework to justify the transfer of personal data of EU subjects to the United States. Instead, we must rely on alternative compliance measures, which are complex, which may also be subject to legal challenge, and which, unlike the Safe Harbor Framework, directly subject us to regulatory enforcement by data protection authorities located in the European Union. As a result, by relying on these alternative compliance measures, we risk becoming the subject of regulatory investigations in any of the individual jurisdictions in which we operate. Each such investigation could cost us significant time and resources, and could potentially result in fines, criminal prosecution, or other penalties. Being forced to rely on alternative compliance measures could also affect the market for our technology, as EU customers may choose to do business with EU-based companies or other competitors that do not need to transfer personal data to the United States in order to avoid the above-identified risks and legal issues.

Additionally, the EU Parliament, Commission, and Council of Ministers recently reached agreement on a finalized GDPR, which will supersede the Data Protection Directive at some point in 2018. Among other requirements, the GDPR obligates companies that process large amounts of personal data about EU residents to implement a number of formal processes and policies reviewing and documenting the privacy implications of the development, acquisition, or use of all new products, technologies, or types of data. Implementing these policies before the GDPR takes effect will take considerable time and resources, and could result in slowing our ability to develop, acquire, or enter into agreements to use new products, technologies, or types of data.

Changes in tax laws affecting us and other market participants could have a material adverse effect on our business.

U.S. legislative proposals have been made that, if enacted, would limit or delay the deductibility of advertising costs for U.S. federal income tax purposes. Any such proposals, if enacted, will likely cause advertisers to reduce their advertising spending in order to mitigate or offset any loss resulting from a change in the tax treatment of such costs. Any such changes would likely have a negative impact on the advertising industry and us by reducing the aggregate amount of money spent on advertising.

U.S. legislative and budget proposals have also included limits on the ability to defer taxation for U.S. federal income tax purposes of earnings outside the United States until those earnings are repatriated, and immediate taxes on unremitted foreign earnings. Any changes in the taxation of our non-U.S. earnings could increase our tax expense and harm our financial position and results of operations.

We generally do not have privity with Internet users who view advertisements that we place, and we may not be able to disclaim liabilities from such Internet users or consumers.

Potential liabilities to Internet users include malicious activities, such as the introduction of malware into users' computers through advertisements served through our platform. Sellers of advertisements purchased through our solution often have terms of use in place with their users that disclaim or limit their potential liabilities to such users, or pursuant to which users waive rights to bring class-actions against the sellers related to advertisements. Certain of our competitors are also prominent sellers, and may be able to include protections in their website terms of use that also limit liability to users of their advertising services. We generally do not have terms of use in place with such users. As a consequence, we generally cannot disclaim or limit potential liabilities to such users through terms of use, which may expose us to greater liabilities than competing advertising networks that are also prominent sellers.

Changes in market standards applicable to our solution could require us to incur substantial additional development costs.

Market forces, competitors' initiatives, regulatory authorities, industry organizations, seller integration revisions, and security protocols are causing the emergence of demands and standards that are or could be applicable to our solution. We expect compliance with these kinds of standards to become increasingly important to buyers and sellers, and conforming to these standards is expected to consume a substantial and increasing portion of our development resources. If our solution is not consistent with emerging standards, our market position and sales could be impaired. If we make the wrong decisions about compliance with these standards, or are late in conforming, or if despite our efforts our solution fails to conform, our offerings will be at a disadvantage in the market to the offerings of competitors who have complied.

Evolving concepts of viewability involve competitive uncertainty and may cause us to incur additional costs and liability risk.

Viewability of digital advertising inventory is relevant to marketers because it represents a way of assessing the value of particular inventory as a means to reach a target audience. However, there is no consensus definition of viewability. Some approaches focus on whether an advertisement can be seen at all, and others focus on whether an advertisement that can be seen is actually seen, in whole or part, or for how long. Low viewability can be caused by various factors, including technical issues (*e.g.* device screen size, browser functionality and settings, web site load times), media design (*e.g.* below-the-fold or sub-page placements), and user behavior (*e.g.* the decision whether to scroll down a website or click on an advertisement or how long to watch a video). Non-viewability is a separate issue and may result, for example, from stacking ads so the one in the back is obscured, or serving ads into a single pixel space too small to be seen. Sometimes these two concepts of viewability are conflated, which tends to obscure analysis.

Aside from non-viewable inventory, which is generally well understood, various vendors and other industry participants advocate definitions and measurements of low viewability that are consistent with their technology or interests. We cannot predict whether consensus views will emerge, or what they will be. Nevertheless, some themes seem to have emerged:

- Buyers of advertising inventory are increasingly using technology, often provided by third parties, to assess viewability of impressions for use as a bidding or purchasing criterion, or to determine value for purposes of determining pricing.
- Assessment of viewability is imperfect, but technology can be expected to improve as data providers, DSPs, and buyers themselves develop viewability assessment tools and build viewability factors into their algorithms for bidding, purchasing, and pricing decisions.
- Inventory viewability and value correlate. More viewable inventory is more valuable, and viewability of inventory increases in importance with the price paid for that inventory.
- Viewability can be used as an inventory differentiator, by domain or on an impression level, with higher viewability generally associated with higher value and pricing, and lower viewability generally associated with lower value and pricing.

These themes are relevant to our business of facilitating fully informed purchase and sale of advertising, and evolution of viewability standards may represent an opportunity to refine matching of supply and demand. However, incorporating viewability concepts fully into our business as they evolve will require us to incur additional costs to integrate relevant technologies and process additional information through our system. If we do not handle viewability well, we could be competitively disadvantaged.

In addition, inventory that is well differentiated on the basis of viewability will also be differentiated on the basis of value, with less viewable inventory valued lower. In this context, if we are not positioned to transact the higher viewability inventory competitively, our revenue and profitability could be adversely affected.

Buyers could attempt to hold us responsible for impressions that do not satisfy their viewability requirements or expectations, and depending upon how viewability evolves, market practice or emerging regulation may require us to incur compliance costs and assume some responsibility for viewability of advertisements transacted through our solution. Divergent views of how to measure viewability and imperfect measurement technology could lead to disagreement, increasing risk of disputes, demands for refunds, and reputational harm.

Failure to comply with industry self-regulation could harm our brand, reputation and our business.

In addition to compliance with government regulations, we voluntarily participate in trade associations and industry self-regulatory groups that promulgate best practices or codes of conduct addressing privacy and the provision of Internet advertising. However, in the past, some of these guidelines have not comported with our business practices, making them difficult for us to implement. If we encounter difficulties in the future, or our opt-out mechanisms fail to work as designed, or if Internet users misunderstand our technology or our commitments with respect to these principles, we may be subject to negative publicity, as well as investigation and litigation by governmental authorities, self-regulatory bodies or other accountability groups, buyers, sellers, or other private parties. Any such action against us could be costly and time consuming, require us to change our business practices, divert management's attention and our resources, and be damaging to our reputation and our business. In addition, we could be adversely affected by new or altered self-regulatory guidelines that are inconsistent with our practices or in conflict with applicable laws and regulations in the United States and other countries where we do business. As a result of such inconsistencies or conflicts, or other business or legal considerations, we may choose not to comply with some self-regulatory guidelines. Additionally, as we expand geographically, we may begin to operate in jurisdictions that have self-regulatory groups in which we do not participate. If we fail to abide by or are perceived as not operating in accordance with applicable laws and regulations and industry best practices, or any industry guidelines or codes with regard to privacy or the provision of Internet advertising, our reputation may suffer and we could lose relationships with buyers and sellers.

Forecasts of market growth may prove to be inaccurate, and even if the market in which we compete achieves the forecasted growth, our business may not grow at similar rates, if at all.

We have in the past provided, and may continue to provide, forecasts related to our market, including forecasts relating to the expected growth in the digital advertising market and parts of that market as well as the forecasted trend towards automation of analog and print advertising markets. Growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may prove to be inaccurate. Moreover, the anticipation that the advertising industry will continue to shift from analog and print media to digital advertising at the rate forecasted, or the anticipation of the shift in advertising spending from analog to digital, may not come to fruition. Further, we may not succeed in our plans to enter or increase our presence in various markets for various reasons, including possible shortfall or misallocation of resources or superior technology development or marketing by competitors.

Risks Related to Our Relationships with Buyers and Sellers and Other Strategic Relationships

We depend on owners of digital media properties for advertising inventory to deliver for advertising campaigns, and any decline in the supply of advertising inventory from these sellers could hurt our business.

We depend on digital media properties to provide us with advertising inventory. The sellers that supply inventory to us typically do so on a non-exclusive basis and are not required to provide us with any minimum amounts or consistent supply of inventory; they are free to, and often do, maintain concurrent relationships with various sources of demand that compete with us, and it is easy for sellers quickly to shift their advertising inventory among these concurrent demand sources, or shift inventory to new demand sources, without notice or accountability. Sellers may seek to change the terms at which they offer inventory to us, or allocate their advertising inventory to our competitors who offer advertisements to them on more favorable terms or whose offerings are considered more beneficial. Sellers may also sell inventory directly to buyers through other channels. Generally, sellers allocate their available inventory among channels according to various methodologies that often result in ranked prioritization in their ad servers. Competitors ranked higher in priority see available impressions earlier and have more opportunity to acquire more inventory and more high value inventory. It is easy for sellers to change rankings in their ad servers, and we cannot control how sellers rank us, and to the extent that competitors have higher priority than us, our revenue and the quality of inventory available to our buyers can be adversely affected. Supply of advertising inventory is also limited for some sellers, such as special sites or new technologies, and sellers may request higher prices, fixed price arrangements or guarantees that we cannot provide as effectively as our competitors, or that would reduce the profitability of that business. In addition, sellers sometimes place significant restrictions on the sale of their advertising inventory, such as strict security requirements, prohibitions on advertisements from specific advertisers or specific industries, and restrictions on the use of specified creative content or format. In addition, sellers or competitors could pressure us to increase the prices for inventory, which may reduce our operating margins, or otherwise block our access to that inventory, without which we would be unable to deliver advertisements using our solution.

If sellers limit advertising inventory made available to us, or increase the price of inventory, or place significant restrictions on the sale of their advertising inventory, we may not be able to replace this with inventory from other sellers that satisfies our requirements in a timely and cost-effective manner. In addition, significant sellers in the industry may enter into exclusivity arrangements with our competitors, which could limit our access to a meaningful supply of advertising inventory. If any of this happens, the value of our solution to buyers could decrease and our revenue could decline or our cost of acquiring inventory could increase, lowering our operating margins.

Our contracts with buyers and sellers are generally not exclusive and generally do not require minimum volumes or long-term commitments. If buyers or sellers representing a significant portion of the demand or inventory in our marketplace decide to materially reduce the use of our solution, we could experience an immediate and significant decline in our revenue and profitability and harm to our business.

Generally, our buyers and sellers are not obligated to provide us with any minimum volumes of business, may do business with our competitors as well as with us, and may bypass us and transact directly with each other or through other intermediaries. Most of our business with buyers originates pursuant to arrangements that are limited in scope and can be reduced or canceled by the buyer without penalty. Similarly, sellers make inventory available to us on a discretionary basis. Accordingly, our business is highly vulnerable to changes in the macro environment and development of new or more compelling offerings by our competitors, which could reduce business generally or motivate buyers or sellers to migrate to competitors' offerings. Further, if our relationships with buyers or sellers become strained due to service failures or other reasons, including possible perceptions by our buyers that we compete with them, it might not be difficult for these clients to reduce or terminate their business with us. Because we do not have long-term contracts, our future revenue may be difficult to predict and there is no assurance that our current buyers and sellers will continue to use our solution or that we will be able to replace lost buyers or sellers with new ones. If a buyer or group of buyers representing a significant portion of the demand in our marketplace, or a seller or group of sellers representing a significant portion of the inventory in our marketplace decides to materially reduce use of our solution, it could cause an immediate and significant decline in our revenue and profitability and harm to our business. Additionally, if we overestimate future usage, we may incur additional expenses in adding infrastructure without a commensurate increase in revenue, which would harm our profitability and other operating results.

The emergence of header bidding may reduce the amount or quality of inventory available to us from some sellers.

Sellers have begun to embrace so-called header bidding, by which impressions that would otherwise be exposed to different potential sources of demand in a sequence dictated by ad server placement are instead available to competitive bidding by demand sources that use header bidding tags that the seller accepts. This can increase revenue to sellers by helping to allocate more inventory to demand sources that value it most highly. However, the number of header bidding tags that sellers accept is limited because too many header bidding tags can cause delays in the transaction execution process, and therefore we will compete with other demand sources for sellers' limited header bidding slots. With sellers that accept our header bidding tags, we may be able to participate in improved demand dynamics, with accompanying potential for improved revenue. However, some sellers may not accept our header bidding tags, and our opportunities with those sellers may be impaired as a result. Certain sources of demand with unique value propositions may be prioritized by sellers in their allocation of available header bidding slots, leaving us to compete with other competitors for the remainder. It is too early to predict what effect the emergence of header bidding will have on our business, but it is possible that its effects could be negative.

Loss of business associated with large buyers or sellers could have significant negative impact on our results of operations and overall financial condition.

We serve large numbers of buyers and sellers, but certain large buyers and sellers have accounted for and will continue to account for a disproportionate share of business transacted through our solution. Further, our contracts with buyers and sellers generally do not provide for any minimum volumes and may be terminated on relatively short notice. Buyer and seller needs and plans can change quickly, and buyers or sellers may reduce volumes or terminate their arrangements with us, quickly and without penalty, for a variety of reasons, including financial issues or other changes in circumstances; development or acquisition by buyers or sellers of their own technologies that reduce their reliance upon us; the fact that we compete directly with some of our buyers; new offerings by or strategic relationships with our competitors; change or removal of personnel with whom we traditionally had relationships; opportunities for buyers and sellers to bypass us and deal directly with each other; change in control (including consolidations through mergers and acquisitions); or declining general economic conditions (including those resulting from dissolutions of companies). Technical issues could also cause a decline in spending. As is typical in our industry, some of the largest buyers and sellers on our platform are also competitors, which could increase the risk that such companies could reduce their business with us.

These factors make it important for us to expand and diversify our client relationships. The number of large media buyers and sellers in the market is finite, and it could be difficult for us to replace revenue loss from any buyers or sellers whose relationships with us diminish or terminate. Just as growth in our inventory strengthens buyer activity in a network effect, loss of inventory or buyers could have the opposite effect. Loss of revenue from significant buyers or failure to collect accounts receivable, whether as a result of buyer payment default, contract termination or other factors, or significant reductions in inventory, could have a significant negative impact on our results of operation and overall financial condition.

We must provide value to both buyers and sellers of advertising without being perceived as favoring one over the other or being perceived as competing with them through our service offerings.

Buyers and sellers have different interests, with each trying to maximize its value in their transactions through use of data, requests that we adapt our solutions to help them, and other means. We are interposed between buyers and sellers, and to be successful, we must continue to find ways of providing value to both without being perceived as favoring one at the expense of the other. For example, our proprietary auction algorithms, which are designed to optimize auction outcomes, influence the allocation and pricing of impressions and must do so in ways that add value to both buyers and sellers. Because new business models continue to emerge, we must constantly adapt our relationship with buyers and sellers and how we market ourselves to each. Further, consistent with our goal of connecting buyers and sellers, we inevitably grow closer to each, and we must take care that our deeper connections with buyers, on the one hand, or sellers, on the other hand, do not come at the expense of the other's interests. In addition, as our own capabilities evolve, we may be perceived by clients, particularly buyers, as competing with them. For example, with the growth of our buy-side capabilities, including our intent marketing business, we have taken steps to provide assurances to some of our buyer clients that our own buy-side capabilities will not result in operational disadvantages to them, such as reduced access to our inventory supply. If we fail to balance our clients' interests appropriately, our ability to provide a full suite of services and our growth prospects may be compromised.

We rely on buyers to use our solution to purchase advertising on behalf of advertisers. Such buyers may have or develop high-risk credit profiles or pay slowly, which may result in credit risk to us or require additional working capital to fund our accounts payable. In addition, direct billing arrangements between buyers and sellers may result in increased working capital demands.

Our revenue is generated from advertising spending transacted over our platform using our technology solution. Generally, we invoice and collect from buyers the full purchase price for impressions they have purchased, retain our fees (where applicable), and remit the balance to sellers. However, in some cases, we may be required to pay sellers for impressions delivered before we have collected, or even if we are unable to collect, from the buyer of those impressions. There can be no assurances that we will not experience bad debt in the future. Any such write-offs for bad debt could have a materially negative effect on our results of operations for the periods in which the write-offs occur. In addition, we attempt to coordinate collections from our buyers so as to fund our payment obligations to our sellers. However, some buyers and sellers are beginning to require direct billing and collection arrangements between themselves, particularly for our Guaranteed Orders solution. Further, growth and increased competitive pressure in the digital advertising industry is causing brand spenders to become more demanding, resulting in overall increased focus by all industry participants on pricing, transparency, and cash and collection cycles. Some buyers have experienced financial pressures that have motivated them to challenge some details of our invoices or to slow the timing of their payments to us. If buyers slow their payments to us or our cash collections are significantly diminished as a result of these dynamics, our revenue and/or cash flow could be adversely affected and we may need to use working capital to fund our accounts payable pending collection from the buyers. This may result in additional costs and cause us to forego or defer other more productive uses of that working capital.

Our sales efforts with buyers and sellers may require significant time and expense and may not yield the results we seek.

Attracting new buyers and sellers and increasing our business with existing buyers and sellers involves substantial time and expense, and we may not be successful in establishing new relationships or in maintaining or advancing our current relationships. We may spend substantial time and effort educating buyers and sellers about our offerings, including providing demonstrations and comparisons against other available solutions. This process can be costly and time-consuming, and is complicated by us having to spend time integrating our solution with software of buyers and sellers. Because our solution may be less familiar in some markets outside the United States, the time and expense involved with attracting, educating and integrating buyers and sellers in international markets may be even greater than in the United States. If we are not successful in targeting, supporting and streamlining our sales processes, our ability to grow our business may be adversely affected. In addition, because of competitive market conditions and negotiating leverage enjoyed by large buyers and sellers, we are sometimes forced to choose between loss of business or contracting on terms that allocate more risk to us than we would prefer to accept.

We rely on buyers and sellers to abide by contractual requirements and relevant laws, rules, and regulations when using our solution, and legal claims or enforcement actions resulting from the actions of buyers or sellers could expose us to liabilities, damage our reputation, and be costly to defend.

The buyers and sellers engaging in transactions through our platform impose various requirements upon each other, and they and the underlying advertisers are subject to regulatory requirements by governments and standards bodies applicable to their activities. We assume responsibility for satisfying or facilitating the satisfaction of some of these requirements through the contracts we enter into with buyers and sellers. In addition, we may have responsibility for some acts or omissions of buyers or sellers transacting business through our solution under applicable laws or regulations or as a result of common law duties, even if we have not assumed responsibility contractually. These responsibilities could expose us to significant liabilities, perhaps without the ability to impose effective mitigating controls upon, or to recover from, buyers and sellers. Moreover, for those third parties who are both a buyer and seller on our platform, it is feasible that they could use our platform to buy and sell advertisements in an effort to inflate their own revenue. While we do not believe we would have legal liability in connection with such a scheme, we could still nevertheless be subject to litigation as a result of such actions, and, if we were sued, we would incur legal costs in our defense and cannot guarantee that a court would not attribute some liability to us.

We contractually require our buyers and sellers to abide by relevant laws, rules and regulations, as well as restrictions by their counterparties, when transacting on our platform, and we generally attempt to obtain representations from buyers that the advertising they place through our solution complies with applicable laws and regulations and does not violate third-party intellectual property rights, and from sellers about the quality and characteristics of the impressions they provide. We also generally receive representations from buyers and sellers about their privacy practices and compliance with applicable laws and regulations, including their maintenance of adequate privacy policies that disclose and permit our data collection practices. Nonetheless, there are many circumstances in which it is difficult or impossible for us to monitor or evaluate their compliance. For example, we cannot control the content of seller's media properties, and we are often unable to determine exactly what information a buyer collects after an ad has been placed, and how the buyer uses any such collected information. If buyers or sellers fail to abide by relevant laws, rules and regulations, or contract requirements, when transacting over our platform, or after such a transaction is completed, we could potentially face liability for such misuse. Similarly, if such misconduct results in enforcement action by a regulatory body or other governmental authority, we could become involved in a potentially time-consuming and costly investigation or we could be subject to some form of sanction or penalty. We may not have adequate indemnity to protect us against, and our policies of insurance may not cover, such claims and losses.

Our business relationships expose us to risk of substantial liability for contract breach, violation of laws and regulations, intellectual property infringement and other losses, and our contractual indemnities and limitations of liability may not protect us adequately.

Our agreements with sellers, buyers and other third parties typically obligate us 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 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. For example, because our business interposes us between buyers and sellers in various ways, buyers often require us to indemnify them against acts and omissions of sellers, and sellers often require us to indemnify them against acts and omissions of buyers. In addition, our agreements with sellers, buyers and other third parties typically include provisions limiting our liability to the counterparty and the counterparty's liability to us. 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.

We have limited ability to control acts and omissions of buyers and sellers or other third parties that could trigger our indemnity obligations, and our policies of insurance may not cover us for acts and omissions of others. We attempt to obtain indemnity from buyers and sellers (as well as other third parties) to protect us in case we become liable for their acts and omissions, but because we contract with many buyers and sellers and those contracts are individually negotiated with different scopes of indemnity and different limits of liability, it is possible that in any case our obligation to provide indemnity for the acts or omissions of a third party such as a buyer or seller may exceed what we are able to recover from that party. Further, contractual limits on our liability may not apply to our indemnity obligations, contractual limits on our counterparties' liability may limit what we can recover from them, and contract counterparties may be unable to meet their obligations to indemnify and defend us as a result of insolvency or other factors. Large indemnity obligations, or obligations to third parties not adequately covered by the indemnity obligations of our contract counterparties, could expose us to significant costs.

In addition to the effects on indemnity described above, the limitation of liability provisions in our contracts may, depending upon the circumstances, be too high to protect us from significant liability for our own acts or omissions, or so low as to prevent us from recovering fully for the acts or omissions of our counterparties.

Our solution relies on third-party open source software components. Failure to comply with the terms of the underlying open source software licenses could expose us to liabilities, and the combination of certain open source software with code that we develop could compromise the proprietary nature of our solution.

Our solution utilizes software licensed to us by third-party authors under “open source” licenses. The use of open source software may entail greater risks than the use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar solutions with lower development effort and time and ultimately put us at a competitive disadvantage.

Although we monitor our use of open source software in an effort to avoid subjecting our products to conditions we do not intend, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on us. Moreover, we cannot guarantee that our processes for controlling our use of open source software will be effective. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue operating using our solution on terms that are not economically feasible, to re-engineer our solution or the supporting computational infrastructure to discontinue use of certain code, or to make generally available, in source code form, portions of our proprietary code.

Risks Relating to Our Operations

Real or perceived errors or failures in the operation of our solution could damage our reputation and impair our sales.

Our solution processes more than 5 million peak queries per second and over 9 trillion bid requests per month and must operate without interruption to support the needs of sellers and buyers. Because our software is complex, undetected errors and failures may occur, especially when new versions or updates are made to our software or network infrastructure or changes are made to sellers’ or buyers’ software interfacing with our solution. Errors or bugs in our software, faulty algorithms, technical or infrastructure problems, or updates to our systems could lead to an inability to process data to place advertisements or price inventory effectively, cause the inadvertent disclosure of proprietary data, or cause advertisements to display improperly or be placed in proximity to inappropriate content. Despite testing by us, errors or bugs in our software have in the past, and may in the future, not be found until the software is in our live operating environment. For example, changes to our solution have in the past caused errors in the reporting and analytics applications for buyers, resulting in delays in their spending on our platform. Errors or failures in our solution, even if caused by the implementation of changes by buyers or sellers to their systems, could also result in negative publicity, disclosure of confidential information, damage to our reputation, loss of or delay in market acceptance of our solution, increased costs or loss of revenue, loss of competitive position, or claims by advertisers for losses sustained by them.

We may make errors in the measurement of transactions conducted through our solution, causing discrepancies with the measurements of buyers and sellers, which can lead to a lack in confidence in us and require us to reduce our fees or provide refunds to buyers and sellers. Alleviating problems resulting from errors in our software could require significant expenditures of capital and other resources and could cause interruptions, delays, or the cessation of our business.

Various risks could interrupt access to our network infrastructure or data, exposing us to significant costs and other liabilities.

Our revenue depends on the technological ability of our solution to deliver and measure advertising impressions, and the operation of our exchange and our ability to place impressions depend on the continuing and uninterrupted performance of our IT systems. Our platform operates on our data processing equipment that is housed in third-party commercial data centers that we do not control. In addition, our systems interact with systems of buyers and sellers and their contractors. All of these facilities and systems are vulnerable to interruption and/or damage from a number of sources, many of which are beyond our control, including, without limitation: (i) power loss, loss of adequate cooling, and telecommunications failures; (ii) fire, flood, earthquake, hurricane, and other natural disasters; (iii) software and hardware errors, failures, or crashes; (iv) financial insolvency; and (v) computer viruses, malware, hacking, terrorism, and similar disruptive problems. In particular, intentional cyber-attacks present a serious issue because they are difficult to prevent and remediate and can be used to defraud our buyers and sellers and their customers and to steal confidential or proprietary data from us, our customers, or their users. Further, because our Los Angeles headquarters and San Francisco offices and our California data center sites are in seismically active areas, earthquakes present a particularly serious risk of business disruption. These vulnerabilities may increase with the complexity and scope of our systems and their interactions with buyer and seller systems.

We attempt to mitigate these risks to our business through various means, including redundant infrastructure, disaster recovery plans, separate test systems, and change control and system security measures, but our precautions may not protect against all problems, and our ability to mitigate risks to related third-party systems is limited. In addition, we rely to a significant degree upon security and business continuity measures of our data center operators, which may be ineffective. Our disaster recovery and business continuity plans rely upon third-party providers of related services, and if those vendors fail us, we could be unable to meet the needs of buyers and sellers. Any steps we take to increase the reliability and redundancy of our systems may be expensive and may not be successful in preventing system failures. Any failures with our solution or delays in the execution of transactions through our system may result in the loss of advertising placements on impressions and, as a result, the loss of revenue. Our facilities would be costly to repair or replace, and any such efforts would likely require substantial time.

Buyers may attribute to us any technical disruption or failure in the performance of advertisements on sellers' digital media properties, harming our reputation and resulting in buyers seeking to avoid payment or demand future credits for disruptions or failures. If we are unable to operate our exchange and deliver advertising impressions successfully, our ability to attract potential buyers and sellers and retain and expand business with existing buyers and sellers could be harmed.

Malfunction or failure of our systems, or other systems that interact with our systems, or inaccessibility or corruption of data, could disrupt our operations and negatively affect our business and results of operations to a level in excess of any applicable business interruption insurance, result in potential liability to buyers and sellers, and negatively affect our reputation and ability to sell our solution.

Any breach of our computer systems or confidential data in our possession could expose us to significant expense and liabilities and harm our reputation.

We maintain our own confidential and proprietary information in our IT systems, and we control or have access to confidential, proprietary, and personal data belonging or related to sellers, buyers, and their clients, as well as vendors and business partners. Our clients and various third parties also have access to our confidential and proprietary information. We take steps to protect the security, integrity and confidentiality of this data, but there is no guarantee that inadvertent or unauthorized use or disclosure will not occur or that third parties will not gain unauthorized access to this data despite our efforts.

We are subject to ongoing security threats, and breaches, computer malware, computer hacking attacks, and inadvertent transmission of computer viruses or other harmful software code may occur on our systems or those of our clients, business partners, or information technology vendors. Security measures undertaken by us, our vendors, and our buyers and sellers may be ineffective as a result of employee error, failure to implement appropriate processes and procedures, malfeasance, cyber-attacks, cyber-extortion or other intentional misconduct by computer hackers, "phishing" or other tactics to obtain illicit system access, or otherwise. Because techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target, and because we typically are not able to control the efficacy of security measures implemented by our clients and vendors, we may be unable to anticipate these techniques or to implement adequate preventative or mitigation measures.

Though it is difficult to determine what harm may directly result from any specific interruption or breach, any security incident could disrupt computer systems or networks, interfere with services to our sellers, buyers, or their clients, and result in unauthorized access to personally identifiable information, intellectual property, and other confidential business information owned by us or our buyers, sellers, or vendors. As a result, we could be exposed to legal claims and litigation, indemnity obligations, regulatory fines and penalties, contractual obligations, other liabilities, significant costs for remediation and re-engineering to prevent future occurrences, significant distraction to our business, and damage to our reputation, our relationships with buyers and sellers, and our ability to retain and attract new buyers and sellers. If personally identifiable information is compromised, we may be required to undertake notification and remediation procedures, provide indemnity, and undergo regulatory investigations and penalties, all of which can be extremely costly and result in adverse publicity.

Failure to maintain the brand security features of our solution could harm our reputation and expose us to liabilities.

Auction-based advertising is bought and sold through our solution in automated transactions that occur in milliseconds. It is important to sellers that the advertising placed on their media not conflict with existing seller arrangements and be of high quality, consistent with applicable seller standards and compliant with applicable legal and regulatory requirements. It is important to buyers that their advertisements are placed on appropriate media, in proximity with appropriate content, that the impressions for which they are charged are legitimate, and that their advertising campaigns yield their desired results. We use various measures, including proprietary technology, in an effort to store, manage and process rules set by buyers and sellers and to ensure the quality and integrity of the results delivered to sellers and buyers through our solution. If we fail to properly implement or honor rules established by buyers and sellers, or if our measures are not adequate, advertisements may be improperly placed through our platform, which can result in harm to our reputation as well as the need to pay refunds and other potential legal liabilities.

If we fail to detect or prevent fraud, intrusion of malware through our platform into the systems or devices of our clients and their customers, or other actions that impact the integrity of our solution or advertisement performance, sellers and buyers could lose confidence in our solution and we could face legal claims, which would cause our business to suffer. If we terminate relationships with sellers as a result of our screening efforts, our volume of paid impressions may decline.

We have in the past, and may in the future, be subject to fraudulent and malicious activities undertaken by persons seeking to use our platform for improper purposes, including to divert or artificially inflate the purchases by buyers through our platform, or to disrupt or divert the operation of the systems and devices of our clients and their customers to misappropriate information, generate fraudulent billings, stage hostile attacks, or for other illicit purposes. Examples of such activities include the use of bots or other automated or manual mechanisms to generate fraudulent impressions that are delivered through our platform, which could overstate the performance of advertising impressions. Such activities could also include the introduction of malware through our platform by persons seeking to commandeer, or gain access to information on, consumers' devices. We use proprietary technology to identify non-human inventory and traffic, as well as malware, and we generally terminate relationships with parties that appear to be engaging in such activities, which may result in fewer paid impressions in the year the relationships are terminated than would have otherwise occurred. Because buyers will frequently re-allocate campaigns to other sellers, and there may be alternative sources of demand to replace any buyer, it is difficult to measure the precise impact on paid impressions and revenue from the loss of these customers. Although we assess the quality and performance of advertising on sellers' digital media properties, it may be difficult to detect fraudulent or malicious activity because we do not own content and we rely in part on sellers and buyers for controls with respect to such activity. Further, perpetrators of fraudulent impressions and malware change their tactics and may become more sophisticated, requiring us to improve over time our processes for assessing the quality of sellers' inventory and controlling fraudulent activity. If we fail to detect or prevent fraudulent or other malicious activity, we could face legal claims from customers and/or consumers and the affected advertisers may experience or perceive a reduced return on their investment or heightened risk associated with use of our solution, resulting in dissatisfaction with our solution, refusals to pay, refund demands, loss of confidence of buyers or sellers, or withdrawal of future business. We could experience similar consequences if inventory sold through our platform is not viewable by the consumer for technical or other reasons.

Any acquisitions we undertake may disrupt our business, adversely affect operations, and dilute stockholders.

Acquisitions have been an important element of our business strategy. We expect to continue to pursue acquisitions in an effort to increase revenue, expand our market position, add to our service offering and technological capabilities, respond to dynamic market conditions, or for other strategic or financial purposes. However, there is no assurance that we will identify suitable acquisition candidates or complete any acquisitions on favorable terms, or at all. Further, the acquisitions we do complete would involve a number of risks, including the following:

- The identification, acquisition and integration of acquired businesses require substantial attention from management. The diversion of management's attention and any difficulties encountered in the transition process could hurt our business.
- The identification, acquisition and integration of acquired businesses requires significant investment, including to determine which new service offerings we might wish to acquire, harmonize service offerings, expand management capabilities and market presence, and improve or increase development efforts and technology features and functions.
- The anticipated benefits from the acquisition may not be achieved, including as a result of loss of customers or personnel of the target, other difficulties in supporting and transitioning the target's customers, the inability to realize expected synergies from an acquisition, or negative culture effects arising from the integration of new personnel.
- We may face difficulties in integrating the personnel, technologies, solutions, operations, and existing contracts of the acquired business.
- We may fail to identify all of the problems, liabilities or other shortcomings or challenges of an acquired company, technology, or solution, including issues related to intellectual property, solution quality or architecture, income tax and other regulatory compliance practices, revenue recognition or other accounting practices, or employee or customer issues.
- To pay for future acquisitions, we could issue additional shares of our common stock or pay cash. Issuance of shares would dilute stockholders. Use of cash reserves could diminish our ability to respond to other opportunities or challenges. Borrowing to fund any cash purchase price would result in increased fixed obligations and could also include covenants or other restrictions that would impair our ability to manage our operations.
- Acquisitions expose us to the risk of assumed known and unknown liabilities including contract, tax, and other obligations incurred by the acquired business or fines or penalties, for which indemnity obligations, escrow arrangements or insurance may not be available or may not be sufficient to provide coverage.

- New business acquisitions can generate significant intangible assets that result in substantial related amortization charges and possible impairments.
- The operations of acquired businesses, or our adaptation of those operations, may require that we apply revenue recognition or other accounting methodologies, assumptions, and estimates that are different from those we use in our current business, which could complicate our financial statements, expose us to additional accounting and audit costs, and increase the risk of accounting errors.
- Acquired businesses may have insufficient internal controls that we must remediate, and the integration of acquired businesses may require us to modify or enhance our own internal controls, in each case resulting in increased administrative expense and risk that we fail to comply with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 or that our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, resulting in late filing of our periodic reports, loss of investor confidence, regulatory investigations, and litigation.
- Acquisition of businesses based outside the U.S. would require us to operate in foreign languages and manage non-U.S. currency, billing, and contracting needs and require us to comply with laws and regulations, including labor laws and privacy laws that in some cases may be more restrictive on our operations than laws applicable to our business in the U.S.
- Acquisitions can sometimes lead to disputes with the former owners of the acquired company, which can result in increased legal expenses, management distraction and the risk that we may suffer an adverse judgment if we are not the prevailing party in the dispute.

The purchase price allocation for any acquisition we complete is generally not finalized until one year after the closing of the acquisition, and any final adjustment to the valuation could have a material change on what is reported as the fair value assigned to the assets and liabilities.

The final purchase price allocation for any acquisition we complete depends upon the finalization of asset and liability valuations, among other things. The valuation studies necessary to estimate the fair values of acquired assets and assumed liabilities and the related allocation of purchase price generally are not finalized until one year after the closing of the acquisition. Initially, we allocate the total estimated purchase price to the acquired assets and assumed liabilities based on preliminary estimates of their fair values. The final determination of these fair values is subsequently determined based upon the actual net tangible and intangible assets that existed on the closing date of the acquisition. Any final adjustment could change the fair values assigned to the assets and liabilities, resulting in a change to our consolidated financial statements, including a change to goodwill. Such change could be material.

If we fail to attract, motivate, train and retain highly qualified engineering, marketing, sales and management personnel, our ability to execute our business strategy could be impaired.

We rely to a significant degree upon our founder, and Chief Executive Officer, Frank Addante; our President, Gregory R. Raifman; and our Chief Operating Officer and Chief Financial Officer, Todd Tappin, for their strategic vision, industry knowledge, management execution, and leadership. The loss of any of them would have a significant adverse effect upon our business.

In addition, our success depends significantly upon our ability to recruit, train, motivate, and retain key technology, engineering, sales, and management personnel. We are a technology-driven company and it is imperative that we have highly skilled mathematicians, computer scientists, engineers and engineering management to innovate and deliver our complex solutions. Increasing our base of buyers and sellers depends to a significant extent on our ability to expand our sales and marketing operations and activities, and our solution requires a sophisticated sales force with specific sales skills and specialized technical knowledge that takes time to develop. Appropriately qualified personnel can be difficult to recruit and retain. In addition, as we execute on our international expansion strategy, we will encounter staffing challenges that are unique to a particular country or region, such as recruiting and retaining qualified personnel in foreign countries and difficulty managing such personnel and integrating them into our culture. In particular, it may be difficult to find qualified sales personnel in international markets, or sales personnel with experience in emerging segments of the market. Skilled and experienced management is critical to our ability to achieve revenue growth, execute against our strategic vision and maintain our performance through the growth and change we anticipate. For certain of our key employees, a significant portion of their equity ownership is vested. As a result, it may be more difficult, and require additional equity awards, for us to continue to retain and motivate these team members.

Competition for employees with experience in our industry can be intense, particularly in California, New York and London, where our operations and the operations of other digital media companies are concentrated and where other technology companies compete for management and engineering talent. Other employers may be able to provide better compensation, more diverse opportunities and better chances for career advancement. None of our founders, officers, or other key employees has an employment agreement for a specific term, and any of such individuals may terminate his or her employment with us at any time.

It can be difficult, time-consuming, and expensive to recruit personnel with the combination of skills and attributes required to execute our business strategy, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. These challenges will increase as we grow. New hires require significant training and it may take significant time (often six months or more) before they achieve full productivity. As a result, we may incur significant costs to attract and retain employees, including significant expenditures related to salaries and benefits and compensation expenses related to equity awards before new hires contribute to sales or productivity, and we may lose new employees to our competitors or other companies before we realize the benefit of our investment in recruiting and training. Moreover, new employees may not be or become as productive as we expect, and we may face challenges in adequately or appropriately integrating them into our workforce and culture. At times we have experienced elevated levels of unwanted attrition, and as our organization grows and changes and competition for talent increases, this type of attrition may increase.

Even if we are successful in hiring qualified new employees, we may be subject to allegations that we have improperly solicited such employees while they remained employed by our competitors, that such employees have improperly solicited other colleagues of theirs employed by the same competitors, or that such employees have divulged proprietary or other confidential information to us in violation of their agreements with such competitors.

Our proprietary rights may be difficult to enforce, which could enable others to copy or use aspects of our solution without compensating us, thereby eroding our competitive advantages and harming our business.

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop or otherwise acquire, so that we can prevent others from using our inventions and proprietary information. Establishing trade secret, copyright, trademark, domain name, and patent protection is difficult and expensive. We rely on trademark, copyright, trade secret laws, confidentiality procedures and contractual provisions to protect our proprietary methods and technologies. Our patent strategy is still in its early stages and, while we have seven issued patents, nine pending U.S. patent applications and two pending patent applications in Canada, valid patents may not be issued from our pending applications. Further, the claims of our issued patents or the claims eventually allowed on any pending applications may not be sufficiently broad to protect our technology or offerings and services. Any issued patents may be challenged, invalidated or circumvented, and any rights granted under these patents may not actually provide adequate defensive protection or competitive advantages to us. Additionally, the process of obtaining patent protection is expensive, time-consuming, and uncertain, and we may not be able to prosecute all necessary or desirable patent applications to successful conclusion at a reasonable cost or in a timely manner. Accordingly, despite our efforts, we may be unable to obtain adequate patent protection, or to prevent third parties from infringing upon or misappropriating our intellectual property.

Unauthorized parties may attempt to copy aspects of our technology or obtain and use information that we regard as proprietary, and the steps we take to protect our proprietary information may not prevent misappropriation of our technology and proprietary information or infringement of our intellectual property rights. Policing unauthorized use of our technology and intellectual property is difficult. We may be required to protect our intellectual property in an increasing number of jurisdictions, a process that is expensive and may not be successful or which we may not pursue in every location. Our competitors and others could attempt to capitalize on our brand recognition by using domain names or business names similar to ours, and we may be unable to prevent third parties from acquiring or using domain names and other trademarks that infringe on, are similar to, or otherwise decrease the value of our brands, trademarks or service marks. In addition, the laws of some foreign countries may not be as protective of intellectual property rights as those of the United States, and mechanisms for enforcement of our proprietary rights in such countries may be inadequate. Also, despite the steps we have taken to protect our proprietary rights, it may be possible for unauthorized third parties to copy or reverse engineer aspects of our technology or otherwise obtain and use information that we regard as proprietary, or to develop technologies similar or superior to our technology or design around our proprietary rights.

From time to time, we may take legal action to enforce our intellectual property rights, protect our trade secrets, determine the validity and scope of the proprietary rights of others, or defend against claims of infringement. Such litigation could result in substantial costs and the diversion of limited resources, and might not be successful. If we are unable to protect our proprietary rights (including aspects of our technology solution) we may find ourselves at a competitive disadvantage to others who have not incurred the same level of expense, time and effort to create and protect their technology and intellectual property.

We may be subject to intellectual property rights claims by third parties, which are costly to defend, could require us to pay significant damages and could limit our ability to use certain technologies and intellectual property.

The digital advertising industry is characterized by the existence of large numbers of patents, copyrights, trademarks, trade secrets and other intellectual property and proprietary rights. Companies in this industry are often required to defend against litigation claims that are based on allegations of infringement or other violations of intellectual property rights.

Third parties may assert claims of infringement or misappropriation of intellectual property rights against us or buyers, sellers or third parties with which we work; we cannot be certain that we are not infringing any third-party intellectual property rights, and we may have liability or indemnification obligations as a result of such claims. As a result of disclosure of information in filings required of a public company, our business and financial condition are visible, which may result in threatened or actual litigation, including by competitors and other third parties.

Regardless of whether claims that we are infringing patents or infringing or misappropriating other intellectual property rights have any merit, these claims are time-consuming and costly to evaluate and defend, and can impose a significant burden on management and employees. The outcome of any claim is inherently uncertain, and we may receive unfavorable interim or preliminary rulings in the course of litigation. There can be no assurances that favorable final outcomes will be obtained in all cases. We may decide to settle lawsuits and disputes on terms that are unfavorable to us. Some of our competitors have substantially greater resources than we do and are able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could.

Although third parties may offer a license to their technology or intellectual property, the terms of any offered license may not be acceptable and the failure to obtain a license or the costs associated with any license could cause our business, results of operations or financial condition to be materially and adversely affected. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology or intellectual property licensed to us. Alternatively, we may be required to develop non-infringing technology or to make other changes, such as to our branding, which could require significant effort and expense and ultimately may not be successful. Furthermore, a successful claimant could secure a judgment or we may agree to a settlement that prevents us from distributing certain products or performing certain services or that requires us to pay substantial damages, including treble damages if we are found to have willfully infringed such claimant’s patents or copyrights. Claims of intellectual property infringement or misappropriation also could result in injunctive relief against us, or otherwise result in delays or stoppages in providing all or certain aspects of our solution.

We are subject to government regulations concerning our employees, including wage-hour laws and taxes.

We are subject to applicable rules and regulations relating to our relationship with our employees, including health benefits, sick days, unemployment and similar taxes, overtime and working conditions, immigration status, and classification of employee benefits for tax purposes. Legislated increases in labor cost components, such as employee benefit costs, workers’ compensation insurance rates, compliance costs and fines, as well as the cost of litigation in connection with these regulations, would increase our labor costs. Many employers nationally have been subject to actions brought by governmental agencies and private individuals under wage-hour laws on a variety of claims, such as improper classification of workers as exempt from overtime pay requirements and failure to pay overtime wages properly, and failure to provide meal and rest breaks or pay for missed breaks, with such actions sometimes brought as class actions, and these actions can result in material liabilities and expenses. Federal and state standards for classifying employees under wage-hour laws differ and are often unclear or require application of judgment, and classification may need to be changed as employment duties evolve over time. We may misclassify employees and be subject to liability as a result. Should we be subject to employment litigation, such as actions involving wage-hour, overtime, break and working time, it may distract our management from business matters and result in increased labor costs.

Risks Related to Our International Business Strategy

Our international operations and expansion plans require increased expenditures and impose additional risks and compliance imperatives, and failure to execute successfully our international plans will adversely affect our growth and operating results.

We have numerous operations outside of North America, in Northern and Southern Europe, Australia, Japan, Singapore, and Brazil. Our expansion plans are also focused on other Asian and Latin American countries, and other countries in Europe, but many of these plans are nascent. We view further international expansion as imperative, and we expect our international operations to contribute significantly to our future growth, particularly through the mobile business, which could provide access to vast user populations in China and the developing world. However, our experience operating outside the United States is still limited. Achievement of our international objectives will require a significant amount of attention from our management, finance, legal, analytics, operations, sales, and engineering teams, as well as significant investment in developing the technology infrastructure necessary to deliver our solution and establishing sales, delivery, support, and administrative capabilities in the countries where we operate. Attracting new buyers and sellers outside the United States may require more time and expense than in the United States, in part due to language barriers, the need to educate such buyers and sellers about our solution, and we may not be successful in establishing and maintaining these relationships. The data center and telecommunications infrastructure in some overseas markets may not be as reliable as in North America and Europe, which could disrupt our operations. In addition, our international operations will require us to develop and administer our internal controls and legal and compliance practices in countries with different cultural norms, languages, currencies, legal requirements and business practices than the United States.

International operations also impose risks and challenges in addition to those faced in the United States, including management of a distributed workforce; the need to adapt our offering to satisfy local requirements and standards (including differing privacy policies and labor laws that are sometimes more stringent); laws and business practices that may favor local competitors; legal requirements or business expectations that agreements be drafted and negotiated in the local language and disputes be resolved in local courts according to local laws; the need to enable transactions in local currencies; longer accounts receivable payment cycles and other collection difficulties; the effect of global and regional recessions and economic and political instability; potentially adverse tax consequences in the United States and abroad; staffing challenges, including difficulty in recruiting and retaining qualified personnel as well as managing such a diversity in personnel; reduced or ineffective protection of our intellectual property rights in some countries; and costs and restrictions affecting the repatriation of funds to the United States.

One or more of these requirements and risks may make our international operations more difficult and expensive or less successful than we expect, and may preclude us from operating in some markets. There is no assurance that our international expansion efforts will be successful, and we may not generate sufficient revenue or margins from our international business to cover our expenses or contribute to our growth.

Operating in multiple countries requires us to comply with different legal and regulatory requirements.

Our international operations subject us to laws and regulations of multiple jurisdictions, as well as U.S. laws governing international operations, which are often evolving and sometimes conflict. For example, the Foreign Corrupt Practices Act, or FCPA, and comparable foreign laws and regulations (including the U.K. Bribery Act) prohibit improper payments or offers of payments to foreign governments and their officials and political parties by U.S. and other business entities for the purpose of obtaining or retaining business. Other laws and regulations prohibit bribery of private parties and other forms of corruption. As we expand our international operations, there is some risk of unauthorized payment or offers of payment or other inappropriate conduct by one of our employees, consultants, agents, or other contractors, including by persons engaged or employed by a business we acquire, which could result in violation by us of various laws, including the FCPA. Safeguards we implement to discourage these practices may prove to be ineffective and violations of the FCPA and other laws may result in severe criminal or civil sanctions, or other liabilities or proceedings against us, including class action lawsuits and enforcement actions from the SEC, Department of Justice, and foreign regulators. Other laws applicable to our international business include local employment, tax, privacy, data security, and intellectual property protection laws and regulations, including restrictions on movement of information about individuals beyond national borders. In some cases, buyers and sellers operating in non-U.S. markets may impose additional requirements on our non-U.S. business in efforts to comply with their interpretation of their own or our legal obligations. These requirements may differ significantly from the requirements applicable to our business in the United States and may require engineering, infrastructure and other costly resources to accommodate, and may result in decreased operational efficiencies and performance. As these laws continue to evolve and we expand to more jurisdictions or acquire new businesses, compliance will become more complex and expensive, and the risk of non-compliance will increase.

Compliance with complex foreign and U.S. laws and regulations that apply to our international operations increases our cost of doing business abroad, and violation of these laws or regulations may interfere with our ability to offer our solution competitively in one or more countries, expose us or our employees to fines and penalties, and result in the limitation or prohibition of our conduct of business. As we continue to grow, we will need to expand into new geographies and learn the regulatory and business laws and customs of each new geography. For example, we have added a data center in Hong Kong, which is our first business presence in China, and we expect our growing mobile business to include business in China. The Chinese government could exercise significant influence or control over our business operations. The Chinese government has recently announced plans to require certain foreign companies operating in China to submit their software and other technology to intrusive security testing, include indigenous Chinese intellectual property and encryption technology in their software, disclose source code and other proprietary information to the Chinese government, and engineer their products to restrict the flow of data outside of China. It is not clear whether such requirements would apply to us, but our operations could attract Chinese government scrutiny as a result of our significant consumer reach and large database. Also, any censorship of websites and content served on computers in mainland China could result in latency with respect to our services in mainland China if our servers are located in Hong Kong or otherwise outside of mainland China, which could significantly impair our ability to process the auction impressions on a timely basis or our ability generally to facilitate the serving of advertisements in China. These factors could result in increased operational expense, and if we are not able to comply with these new regulatory requirements, our business, results of operations and prospects may be adversely affected.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

Our operations are subject to U.S. export controls, specifically the Export Administration Regulations, or EAR, and economic sanctions enforced by the Office of Foreign Assets Control. These regulations limit and control export of encryption technology. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products and services to countries, governments, and persons targeted by U.S. sanctions. We incorporate encryption technology into the servers that operate our solution. As a result of locating some servers in data centers outside of the United States, we must comply with these export control laws.

In addition, various countries regulate the import of certain encryption technology and have enacted laws that could limit our ability to deploy our technology or our customers' ability to use our solution in those countries. Changes in our technology or changes in export and import regulations may delay introduction of our solution or the deployment of our technology in international markets, prevent our customers with international operations from using our solution globally or, in some cases, prevent the export or import of our technology to certain countries, governments or persons altogether. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of our solution by, or in our decreased ability to export our technology to, international markets.

Fluctuations in the exchange rates of foreign currencies could result in currency transaction losses.

We currently have transactions denominated in various non-U.S. currencies, and may, in the future, have sales denominated in the currencies of additional countries. In addition, we incur a portion of our expenses in non-U.S. currencies, and to the extent we need to convert currency to pay expenses, we are exposed to potentially unfavorable changes in exchange rates and added transaction costs. We expect international transactions to become an increasingly important part of our business, and such transactions may be subject to unexpected regulatory requirements and other barriers. Any fluctuation in relevant currency exchange rates may negatively impact our business, financial condition and results of operations. We have not previously engaged in foreign currency hedging, and any effort to hedge our foreign currency exposure may not be effective due to lack of experience, unreasonable costs or illiquid markets. In addition, hedging may not protect against all foreign currency fluctuations and can result in losses.

Risks Related to Our Internal Controls and Finances

Failure to maintain effective internal controls could cause our investors to lose confidence in us and adversely affect the market price of our common stock. If our internal controls are not effective, we may not be able to accurately report our financial results or prevent fraud.

Section 404 of the Sarbanes-Oxley Act of 2002 requires that we maintain internal control over financial reporting that meets applicable standards and report on the effectiveness of our internal controls and any material weaknesses we identify. When we are no longer an "emerging growth company" we will also need to provide a statement that our independent registered public accounting firm has issued an opinion on our internal control over financial reporting.

We may err in the design or operation of our controls, and all internal control systems, no matter how well designed and operated, can provide only reasonable assurance that the objectives of the control system are met. Because there are inherent limitations in all control systems, there can be no absolute assurance that all control issues have been or will be detected. We previously identified certain material weaknesses in our internal controls which were remediated during 2014. However, completion of remediation does not provide assurance that our remediated controls will continue to operate properly or that our financial statements will be free from error. There may be undetected material weaknesses in our internal control over financial reporting, as a result of which we may not detect financial statement errors on a timely basis. Moreover, in the future we may implement new offerings and engage in business transactions, such as acquisitions, reorganizations, or implementation of new information systems that could require us to develop and implement new controls and could negatively affect our internal control over financial reporting and result in material weaknesses.

If we identify new material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner, or, once required, if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, we may be unable, or be perceived as unable, to produce timely and reliable financial reports, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our common stock could be negatively affected. As a result of such failures, we could also become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, and become subject to litigation from investors and stockholders, which could harm our reputation, financial condition, or divert financial and management resources from our core business.

Impairment of intangible assets could increase our expenses.

A portion of our assets consists of capitalized software development costs, as well as goodwill and other intangible assets acquired in connection with acquisitions. Current accounting standards require us to evaluate goodwill on an annual basis and other intangibles if certain triggering events occur, and adjust the carrying value of these assets to net realizable value when such testing reveals impairment of the assets. Various factors, including regulatory or competitive changes, could affect the value of our intangible assets. If we are required to write down the value of our goodwill or intangible assets due to impairment, our reported expenses will increase, resulting in a corresponding decrease in our reported profit.

Our accounting is becoming more complex, and relies upon estimates or judgments relating to our critical accounting policies. If our accounting is erroneous or based on assumptions that change or prove to be incorrect, our operating results could fall below the expectations of securities analysts and investors, resulting in a decline in our stock price.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States, or GAAP, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes, and also to comply with many complex requirements and standards. We devote substantial resources to compliance with accounting requirements and we base our estimates on our best judgment, historical experience, information derived from third parties, and on various assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. However, various factors are causing our accounting to become complex. As a result of the introduction of different transaction types in our intent marketing business beginning in April 2015, we use both gross and net revenue reporting, as opposed to our historical use only of net reporting, and the determination of gross versus net treatment for various transactions requires application of complex rules and exercise of judgment and can be uncertain. Further, our recent acquisitions have imposed purchase accounting requirements, required us to integrate accounting personnel, systems, and processes, necessitated various consolidation and elimination adjustments, and imposed additional filing and audit requirements. Ongoing evolution of our business, and any future acquisitions, will compound these complexities. Our operating results may be adversely affected if we make accounting errors or our judgments prove to be wrong, assumptions change or actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors or guidance we may have provided, resulting in a decline in our stock price and potential legal claims. Significant judgments, assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, stock-based compensation, purchase accounting, and income taxes.

We have begun reporting a portion of our revenue on a gross basis. The combination of gross and net revenue reporting may make our financial reporting more complex and difficult to predict and understand.

The recognition of our revenue is governed by certain criteria that must be met and that determine whether we report revenue either on a gross basis, as a principal, or net basis, as an agent, depending upon the nature of the sales transaction. Before April 2015, we reported our revenue on a net basis, but beginning in April 2015 we commenced an intent marketing offering by which we offer buyers dynamic CPM pricing for inventory acquisition in support of their advertising campaigns. We do not charge fees for this service; instead we attempt to acquire inventory for buyers at prices that satisfy their campaign objectives while allowing us to retain a margin. We report revenue from these transactions on a gross basis, and gross reporting results in higher GAAP revenue and lower GAAP margins on a particular amount of managed revenue than for an equivalent level of managed revenue for which we report revenue on a net basis, even though the take rate on the transactions reported gross may be higher than the take rate on transactions reported net. The portion of our revenue reported gross may increase as a result of growth in our intent marketing services, as well as through the evolution of our business to include other transactions for which revenue is reported on a gross basis, due to substantive changes in our business, such as through acquisitions, changes to the commercial terms with buyers and sellers or structural changes to our existing business, or due to changes in accounting standards or interpretations. It is also possible that revenue reporting for existing business may change from gross to net or vice versa as a result of changes in contract terms or transaction mechanics. We may experience significant fluctuations in revenue in future periods depending upon, in part, the nature of our sales and our reporting of such revenue and related accounting treatment, without proportionate correlation to our underlying activity or net income. The combination of net and gross revenue reporting, and potential changes from one to the other in various parts of our business, may make our financial reporting more complex and difficult for investors to understand, and may make comparison of our results of operations to prior periods or other companies more difficult. As our business evolves, the need to consider the use of gross reporting more broadly for different kinds of transactions and the potential for changes in reporting for particular elements of our business will require application of judgment and could increase the potential for reporting errors.

In order to provide guidance or make other projections regarding our expectations of revenue for future periods, we must make estimates and assumptions about the mix of gross and net-reported transactions based upon the volumes and characteristics of the transactions we think will make up the total mix of revenue in the period covered by the projection. Those estimates and assumptions may be inaccurate when made, or may be rendered inaccurate by circumstances occurring after the guidance is given, such as changing the characteristics of our offerings or particular transactions in response to client demands, market developments, regulatory pressures, acquisitions, and other factors. In addition, the rules governing revenue recognition in our business are complex, and the rules or their interpretation may evolve. Even apparently minor changes in transaction terms from those initially envisioned can result in different accounting conclusions from those foreseen. In addition, we may incorrectly extrapolate from revenue recognition treatment of prior transactions to future transactions that we believe are similar, but that ultimately are determined to have different characteristics that dictate different revenue reporting treatment. As a result, it is possible that our projections of revenue guidance may vary, possibly significantly, from actual results, or comparisons of our projections from period to period may be difficult, resulting in potential confusion and even claims against us based upon alleged inaccuracy of our projections.

Our tax liabilities may be greater than anticipated.

The U.S. and non-U.S. tax laws applicable to our business activities are subject to interpretation. We are subject to audit by the Internal Revenue Service and by taxing authorities of the state, local, and foreign jurisdictions in which we operate. Our tax obligations are based in part on our corporate operating structure, including the manner in which we develop, value, and use our intellectual property and sell our solutions, the jurisdictions in which we operate, how tax authorities assess revenue-based taxes such as sales and use taxes, the scope of our international operations, and the value we ascribe to our intercompany transactions. Taxing authorities may challenge our tax positions and methodologies for valuing developed technology or intercompany arrangements, as well as our positions regarding jurisdictions in which we are subject to certain taxes, which could expose us to additional taxes and increase our worldwide effective tax rate. Any adverse outcomes of such challenges to our tax positions could result in additional taxes for prior periods, interest, and penalties, as well as higher future taxes. In addition, our future tax expense could increase as a result of changes in tax laws, regulations, or accounting principles, or as a result of earning income in jurisdictions that have higher tax rates. An increase in our tax expense could have a negative effect on our financial position and results of operations. Moreover, the determination of our provision (benefit) for income taxes and other tax liabilities requires significant estimates and judgment by management, and the tax treatment of certain transactions is uncertain. Although we believe we will make reasonable estimates and judgments, the ultimate outcome of any particular issue may differ from the amounts previously recorded in our financial statements and any such occurrence could materially affect our financial position and results of operations.

Our ability to use our net operating losses and tax credit carryforwards to offset future taxable income may be subject to certain limitations, which could result in higher tax liabilities.

Our ability to fully utilize our net operating loss and tax credit carryforwards to offset future taxable income may be limited. At December 31, 2015, we had U.S. federal net operating loss carryforwards, or NOLs, of approximately $59.8 million, state NOLs of approximately $54.8 million, foreign NOLs of approximately $13.7 million, federal research and development tax credit carryforwards, or credit carryforwards, of approximately $6.1 million, state credit carryforwards of approximately $5.1 million, and foreign credit carryforwards of approximately $0.5 million. A lack of future taxable income would adversely affect our ability to utilize these NOLs and credit carryforwards. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, and comparable state income tax laws, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its NOLs and credit carryforwards to offset future taxable income following the ownership change. As a result, future changes in our stock ownership, including because of issuance of shares of common stock in connection with acquisitions or other direct or indirect changes in our ownership that may be outside of our control, could result in limitations on our ability to fully utilize our NOLs and credit carryforwards. The Company had an ownership change in January 2008 and $2.3 million of federal and state NOLs are already subject to limitation under Section 382 of the Code. Additionally, approximately $3.4 million of our federal NOLs and approximately $3.4 million of our state NOLs were generated during the pre-acquisition period by corporations that we acquired, and thus those NOLs already are subject to limitation under Section 382 of the Code and comparable state income tax laws. In addition, depending on the level of our taxable income, all or a portion of our NOLs and credit carryforwards may expire unutilized, which could prevent us from offsetting future taxable income by the entire amount of our current and future NOLs and credit carryforwards. We have recorded a full valuation allowance related to our NOLs, credit carryforwards, and other net deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets. To the extent we determine that all, or a portion of, our valuation allowance is no longer necessary, we will reverse the valuation allowance and recognize an income tax benefit in the reported financial statement earnings in that period. Once the valuation allowance is eliminated or reduced, its reversal will no longer be available to offset our current financial statement tax provision in future periods.

We may require additional capital to support growth, and such capital might not be available on terms acceptable to us, if at all. Inability to obtain financing could limit our ability to conduct necessary operating activities and make strategic investments.

We intend to continue to make investments in pursuit of our strategic objectives and to support our business growth. Various business challenges may require additional funds, including the need to respond to competitive threats or market evolution by developing new solutions and improving our operating infrastructure, either through additional hiring or acquisition of complementary businesses or technologies, or both. In addition, we could incur significant expenses or shortfalls in anticipated cash generated as a result of unanticipated events in our business or competitive, regulatory, or other changes in our market, or longer payment cycles required or imposed by our buyers.

Our available cash and cash equivalents, the cash we anticipate generating from operations, and our available line of credit under our credit facility may not be adequate to meet our capital needs, and therefore we may need to engage in equity or debt financings to secure additional funds. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and respond to business challenges could be significantly impaired, and our business may be adversely affected.

If we do raise additional funds through future issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing that we secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, including the ability to pay dividends. This may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. In addition, if we issue debt, the holders of that debt would have prior claims on the Company's assets, and in case of insolvency, the claims of creditors would be satisfied before distribution of value to equity holders, which would result in significant reduction or total loss of the value of our equity.

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

We have a $40.0 million credit facility with Silicon Valley Bank. At December 31, 2015, we had no amounts outstanding under this facility. Borrowings are secured by substantially all of our tangible personal property assets and all of our intangible assets are subject to a negative pledge in favor of Silicon Valley Bank. This credit facility is subject to certain financial ratio and liquidity covenants, as well as restrictions that limit our ability, among other things, to:

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

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

Our ability to renew our existing credit facility, which matures in September 2018, 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 addition, if credit is available, lenders may seek more restrictive covenants and higher interest rates that may reduce our borrowing capacity, increase our costs, and reduce our operating flexibility.

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

Risks Related to the Securities Markets and Ownership of our Common Stock

The price of our common stock may be volatile and the value of an investment in our common stock could decline.

Technology stocks have historically experienced high levels of volatility. The trading price of our common stock has fluctuated substantially and may continue to do so. These fluctuations could result in significant decreases in the value of an investment in our common stock. Factors that could cause fluctuations in the trading price of our common stock include the following:

- announcements of new offerings, products, services or technologies, commercial relationships, acquisitions, or other events by us or our competitors;
- price and volume fluctuations in the overall stock market from time to time;
- significant volatility in the market price and trading volume of technology companies in general and of companies in the digital advertising industry in particular;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes or fluctuations in our results of operations;
- actual or anticipated changes in the expectations of investors or securities analysts, and whether our results of operations meet these expectations;
- litigation involving us, our industry, or both;
- regulatory developments in the United States, foreign countries, or both;
- general economic conditions and trends;
- major catastrophic events;
- breaches or system outages;
- departures of officers or other key employees; or
- an adverse impact on the company resulting from other causes, including any of the other risks described in this report.

In addition, if the market for technology stocks or the stock market, in general, experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, volatility in the market price of a company’s securities has often resulted in securities litigation being brought against that company. Declines in the price of our common stock, even following increases, may result in securities litigation against us, which would result in substantial costs and divert our management’s attention and resources from our business.

Our equity compensation and acquisition practices expose our stockholders to dilution.

We have relied and may continue to rely heavily upon equity compensation, and consequently our outstanding unvested equity awards represent substantial dilution to our stockholders. In addition, we have used our common stock as consideration for acquisitions of other companies, and we anticipate using shares of our common stock or securities convertible into our common stock from time to time in connection with financings, acquisitions, investments, or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and cause the trading price of our common stock to decline. As of February 22, 2016, we had 47,178,441 shares of common stock outstanding, including 1,945,658 shares of unvested restricted stock issued under our various equity incentive plans. At that date, we also had outstanding under our equity incentive plans 3,792,808 unvested restricted stock units and 6,280,164 stock options, of which 3,709,052 were vested at a weighted-average exercise price of $8.17 per share and 2,571,112 were unvested. All of these outstanding stock awards, together with an additional 1,936,724 shares of our common stock reserved for issuance under our equity incentive plans and 1,193,565 shares of common stock reserved under our 2014 Employee Stock Purchase Plan, and any increase in the shares available pursuant to the plans' evergreen provisions (if applicable), are registered for offer and sale on Form S-8 under the Securities Act of 1933. We also intend to register the offer and sale of all other shares of common stock that may be authorized under our current or future equity compensation plans, issued under equity plans we may assume in acquisitions, or issued as inducement awards under New York Stock Exchange rules. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, our Insider Trading Policy trading blackouts, and the restrictions of Rule 144 in the case of our affiliates.

Insiders have substantial control over us, which could limit investors' ability to influence the outcome of key transactions, including a change of control.

Our directors, executive officers, and stockholders who own greater than 5% of our outstanding common stock, in the aggregate, beneficially own approximately 49% of the shares of our common stock outstanding as of February 22, 2016. As a result, these stockholders will be able to influence or control matters requiring approval by our stockholders, including the election of directors and the approval of mergers, acquisitions or other extraordinary transactions. They may also have interests that differ from other investors and may vote in a manner that is adverse to investors' interests. This concentration of ownership may have the effect of deterring, delaying or preventing a change of control of the company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of the company, and might ultimately affect the market price of our common stock.

Our public float is still relatively small, increasing the risk that sales by significant holders could adversely affect the market price for our stock.

A significant portion of our outstanding shares are held by pre-IPO investors, employees, or investors who received our stock as consideration for companies we have acquired and hold it under lockup. In addition, institutional investors may from time to time accumulate relatively large amounts of our publicly traded shares. The average daily trading volume for our common stock during 2015 was 411,080 shares. In addition, we are relatively new to the public markets and not well known to many analysts, investors, and others who could influence demand for our shares. Further, because we are a relatively small company without an established history of profitability, the range of investors willing to invest in our shares may be relatively limited. As a result of these factors, our shares can be susceptible to sudden, rapid declines in price, especially when large blocks of shares are sold. Under our Insider Trading Policy, we impose trading blackouts during the period beginning on the first day of the last month of each quarter and ending after two trading days following the filing of our next quarterly report on Form 10-Q or Annual Report on Form 10-K. A substantial number of our employees are limited to selling their equity incentive plan shares during these open windows. In addition, our employee restricted stock and restricted stock unit awards typically vest each May 15 and November 15, and are subject to automatic sale arrangements at those dates to cover taxes accruing on vesting. Finally, shares we have issued as consideration for acquisitions have been subject to lock-up arrangements that expire in large numbers on certain dates. These insider trading windows, restricted stock vesting mechanics, and acquisition stock arrangements tend to concentrate selling into certain periods, and the resulting sales pressure can cause the trading price of our common stock to decline at those times. Sales of a substantial number of such shares, or the perception that such sales may occur, could cause our share price to fall or make it more difficult for investors to sell our common stock at a time and price that they deem appropriate, and could also impair our ability to raise capital through the sale of equity securities.

Competition for investors could adversely affect the price of our stock.

There are many companies in the advertising technology or "ad tech" space, but we are one of a relatively small portion of those companies that is publicly traded. Some of the other publicly traded ad tech companies are substantially larger than us and have more diversified offerings, or may be perceived by investors as having greater stability or growth potential. Others may be focused on parts of the business that investors may view as more appealing. Ad tech or related advertising companies that are not yet public may become public, and publicly traded companies may enter the ad tech business through acquisitions. Increase in the number of publicly traded companies available to investors wishing to invest in ad tech may result in a decrease in demand for our shares, either because overall demand for ad tech investment does not increase commensurately with the increase in public companies in the ad tech space, or because we are not perceived as competitively differentiated or offering superior value compared to other such companies. Decrease in demand for our shares would result in suppressed growth, or decrease, in the value of our stock.

Our business could be negatively affected as a result of actions of activist stockholders.

Campaigns by stockholders to effect changes at publicly traded companies are sometimes led by investors seeking to increase short-term stockholder value through actions such as financial restructuring, increased debt, special dividends, stock repurchases or sales of assets or the entire company. If we are targeted by an activist stockholder in the future, the process could be costly and time-consuming, disrupt our operations and divert the attention of management and our employees from executing our strategic plan. Additionally, perceived uncertainties as to our future direction as a result of stockholder activism or changes to the composition of our board of directors may lead to the perception of a change in the direction of our business, instability or lack of continuity, which may be exploited by our competitors, cause concern to current or potential buyers and sellers on our platform, who may choose to transact with our competitors instead of us, and make it more difficult to attract and retain qualified personnel.

If securities or industry analysts do not publish research or reports about our business, or publish inaccurate or unfavorable research or reports about our business, our share price and trading volume could decline.

The trading market for our common stock to some extent depends on the research and reports that securities or industry analysts publish about us. We do not control these analysts, and their reports or analyst consensus may not reflect our guidance, plans, or expectations. If one or more of the analysts who cover us downgrades our shares or expresses a negative opinion of our business prospects, our share price could decline. If one or more of these analysts decreases or ceases coverage of our company, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

We do not intend to pay dividends for the foreseeable future and, consequently, investors' ability to achieve a return on their investment will depend on appreciation in the price of our common stock.

We have never declared or paid any dividends and we do not anticipate paying any cash dividends in the foreseeable future. In addition, our credit facility contains restrictions on our ability to pay dividends. As a result, investors may only receive a return on their investment in our common stock if the market price of our common stock increases.

Provisions of our charter documents and Delaware law may inhibit a potential acquisition of the company and limit the ability of stockholders to cause changes in company management.

Our amended and restated certificate of incorporation and amended and restated bylaws include provisions, as described below, that could delay or prevent a change in control of the company, and make it difficult for stockholders to elect directors who are not nominated by the current members of our board of directors or take other actions to change company management.

- Our certificate of incorporation gives our board of directors the authority to issue shares of preferred stock in one or more series, and to establish the number of shares in each series and to fix the price, designations, powers, preferences and relative, participating, optional or other rights, if any, and the qualifications, limitations, or restrictions of each series of the preferred stock without any further vote or action by stockholders. The issuance of shares of preferred stock may discourage, delay or prevent a merger or acquisition of the company by significantly diluting the ownership of a hostile acquirer, resulting in the loss of voting power and reduced ability to cause a takeover or effect other changes.
- Our certificate of incorporation provides that our board of directors is classified, with only one of its three classes elected each year, and directors may be removed only for cause and only with the vote of 66 $^{2}/_{3}$% of the voting power of stock outstanding and entitled to vote thereon. Further, the number of directors is determined solely by our board of directors, and because we do not allow for cumulative voting rights, holders of a majority of shares of common stock entitled to vote may elect all of the directors standing for election. These provisions could delay the ability of stockholders to change the membership of a majority of our board of directors.

- Under our bylaws, only the board of directors or a majority of remaining directors, even if less than a quorum, may fill vacancies resulting from an increase in the authorized number of directors or the resignation, death or removal of a director.
- Our certificate of incorporation prohibits stockholder action by written consent, so any action by stockholders may only be taken at an annual or special meeting.
- Our certificate of incorporation provides that a special meeting of stockholders may be called only by the board of directors. This could delay any effort by stockholders to force consideration of a proposal or to take action, including the removal of directors.
- Under our bylaws, advance notice must be given to nominate directors or submit proposals for consideration at stockholders' meetings. This gives our board of directors time to defend against takeover attempts and could discourage or deter a potential acquirer from soliciting proxies or making proposals related to an unsolicited takeover attempt.
- The provisions of our certificate of incorporation noted above may be amended only with the affirmative vote of holders of at least $66\,^{2}/_{3}$% of the voting power of all of the then-outstanding shares of the company's voting stock, voting together as a single class. The same two-thirds vote is required to amend the provision of our certificate of incorporation imposing these supermajority voting requirements. Further, our bylaws may be amended only by our board of directors or by the same percentage vote of stockholders noted above as required to amend our certificate of incorporation. These supermajority voting requirements may inhibit the ability of a potential acquirer to effect such amendments to facilitate an unsolicited takeover attempt.
- Our board of directors may amend our bylaws by majority vote. This could allow the board to use bylaw amendments to delay or prevent an unsolicited takeover, and limits the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt.

We are also subject to Section 203 of the Delaware General Corporation Law, which prohibits us from engaging in any business combination with an interested stockholder for a period of three years from the date the person became an interested stockholder, unless certain conditions are met. These provisions make it more difficult for stockholders or potential acquirers to acquire the company without negotiation and may apply even if some of our stockholders consider the proposed transaction beneficial to them. For example, these provisions might discourage a potential acquisition proposal or tender offer, even if the acquisition proposal or tender offer were to be at a premium over the then current market price for our common stock. These provisions could also limit the price that investors are willing to pay in the future for shares of our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters are located in Los Angeles, California, where we occupy facilities totaling approximately 47,000 square feet under a lease which expires in 2021. We use these facilities for our principal administration, sales and marketing, technology and development, and engineering activities. We also lease additional offices and maintain data centers in other North American locations, South America, Europe, Australia, and Asia. We believe that our current facilities are adequate to meet our current needs, and that, if we require additional space, we will be able to obtain additional facilities on commercially reasonable terms.

Item 3. Legal Proceedings

We and our subsidiaries may from time to time be parties to legal or regulatory proceedings, lawsuits and other claims incident to our business activities and to our status as a public company. Such matters may include, among other things, assertions of contract breach or intellectual property infringement, claims for indemnity arising in the course of our business, regulatory investigations or enforcement proceedings, and claims by persons whose employment has been terminated. Such matters are subject to many uncertainties, and outcomes are not predictable with assurance. Consequently, we are unable to ascertain the ultimate aggregate amount of monetary liability, amounts which may be covered by insurance or recoverable from third parties, or the financial impact with respect to such matters as of December 31, 2015. However, based on our knowledge as of December 31, 2015, 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 consolidated financial position, results of operations or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock has been listed on the New York Stock Exchange, or the NYSE, since April 1, 2014, under the symbol "RUBI". Prior to our initial public offering, or IPO, there was no public market for our common stock. The following table sets forth, for the indicated periods, the high and low sales prices of our common stock as reported on the NYSE.

	High	Low
Fiscal 2014 Quarters Ended:		
June 30, 2014 (from April 1, 2014)	$ 23.20	$ 11.15
September 30, 2014	$ 13.45	$ 8.76
December 31, 2014	$ 17.00	$ 8.76
Fiscal 2015 Quarters Ended:		
March 31, 2015	$ 20.59	$ 14.14
June 30, 2015	$ 19.21	$ 14.78
September 30, 2015	$ 18.59	$ 13.08
December 31, 2015	$ 16.97	$ 13.53

Holders of Record

As of December 31, 2015, there were approximately 166 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders also does not include stockholders whose shares may be held in trust by other entities.

Dividend Policy

We have never declared or paid any dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain any earnings to finance the operation and expansion of our business. Any future determination to pay dividends will be at the discretion of our board of directors and will be dependent upon then-existing conditions, including our earnings, capital requirements, results of operations, financial condition, business prospects and other factors that our board of directors considers relevant. See Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for additional information regarding our financial condition. In addition, our credit facility contains restrictions on our ability to pay dividends.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

We did not purchase shares of our common stock during the year ended December 31, 2015.

We presently have no publicly announced repurchase plan or program.

Recent Sales of Unregistered Securities

On December 31, 2015, we issued 971,481 shares of our common stock (valued at approximately $16.0 million based on the stock price on December 31, 2015) in satisfaction of the contingent consideration payable to stockholders of Chango. The shares were issued in reliance upon an exemption from registration under U.S. federal securities laws provided by Section 3(a)(10) of the Securities Act of 1933, as amended. In accordance with the acquisition agreement, the Ontario Superior Court of Justice (Commercial List) (the “Court”) was advised of the intention to rely on the exemption under Section 3(a)(10), we provided adequate notice of a public hearing that was open to all persons to whom the securities were to be issued, and the Court approved the procedural and substantive fairness of the terms and conditions of the acquisition.

On December 31, 2015, we issued 585,170 shares of our common stock (valued at approximately $9.6 million based on the stock price on December 31, 2015) in satisfaction of the contingent consideration payable to stockholders of iSocket pursuant to the merger agreement between us and iSocket. The shares were issued in private placements under Section 4(a) (2) of the Securities Act.

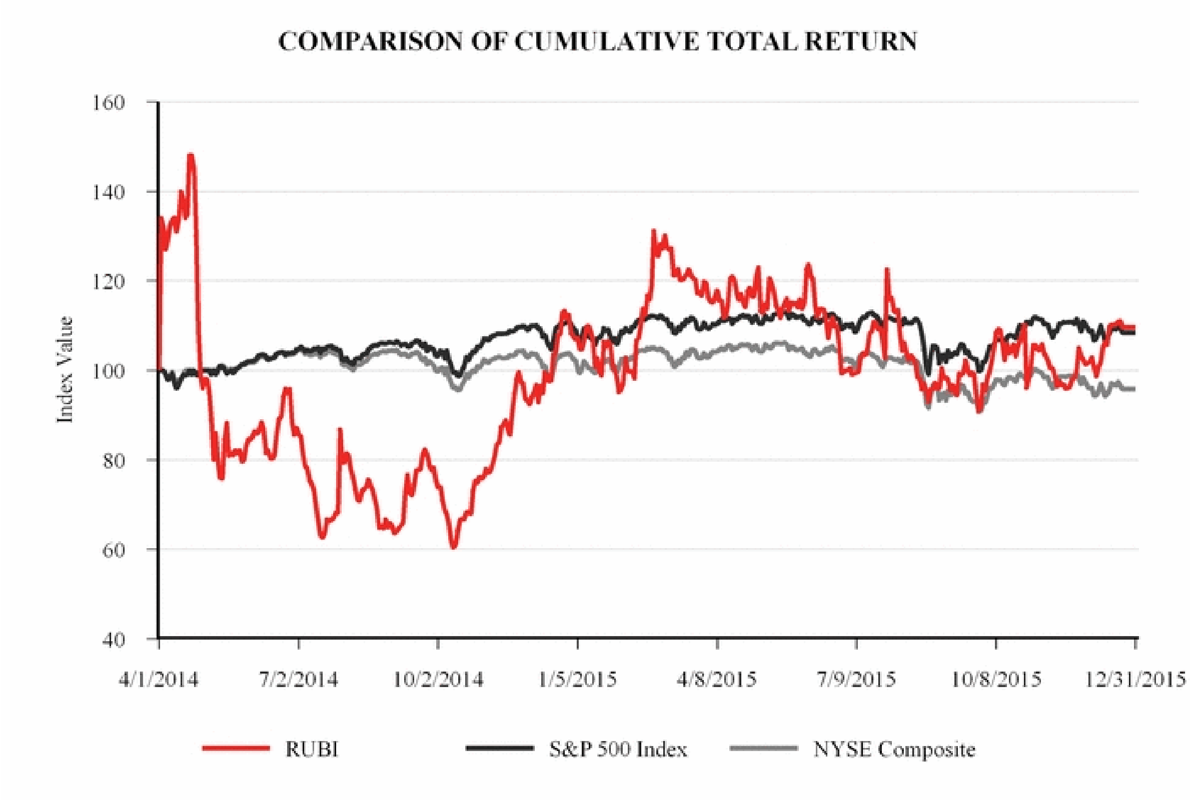
Use of Proceeds

On April 7, 2014, we closed our IPO, whereby we sold 6,432,445 shares of common stock (including 1,015,649 shares sold pursuant to the underwriters' exercise of their over-allotment option), and the selling stockholders sold 1,354,199 shares of common stock. There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on April 2, 2014 pursuant to Rule 424(b) of the Securities Act.

Stock Performance Graph

This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of ours under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

The following graph compares the cumulative total stockholder return on an initial investment of $100 in our common stock between April 1, 2014 (the date of our IPO) and December 31, 2015, with the comparative cumulative total returns of the S&P 500 Index and NYSE Composite Index over the same period. As previously discussed, we have not paid any cash dividends and, therefore, the cumulative total return calculation for us is based solely upon stock price appreciation (depreciation) and not reinvestment of cash dividends, whereas the data for the S&P 500 Index and NYSE Composite Index assumes reinvestments of dividends. The graph assumes our closing sales price on April 1, 2014 of $15.00 per share as the initial value of our common stock. The returns shown are based on historical results and are not necessarily indicative of, nor intended to forecast, future stock price performance.



Item 6. Selected Financial Data

The following selected consolidated financial data should be read in conjunction with Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes appearing in Item 8 "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

The following table sets forth our selected consolidated historical financial and operating data for the periods indicated. The consolidated statements of operations data for the years ended December 31, 2015, 2014, and 2013, and the consolidated balance sheet data as of December 31, 2015, and 2014 have been derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Our business has evolved significantly since our founding, including through acquisitions, and we expect the business to continue to evolve rapidly. Period-to-period comparisons of our historical results of operations are not necessarily meaningful, and historical operating results may not be indicative of future performance. See Note 7 to our consolidated financial statements for a discussion of the impacts of our recent acquisitions.

	Year Ended				
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
	(in thousands, except per share data)				
Revenue	$ 248,484	$ 125,295	$ 83,830	$ 57,072	$ 37,059
Expenses:					
Costs of revenue[(1)][(2)]	58,495	20,754	15,358	12,367	12,893
Sales and marketing[(1)][(2)]	83,333	43,203	25,811	20,458	17,748
Technology and development[(1)][(2)]	42,055	22,718	18,615	13,115	12,496
General and administrative[(1)][(2)]	70,199	57,398	27,926	12,331	8,926
Total expenses	254,082	144,073	87,710	58,271	52,063
Loss from operations	(5,598)	(18,778)	(3,880)	(1,199)	(15,004)
Other (income) expense	(1,459)	(277)	5,122	1,029	269
Loss before income taxes	(4,139)	(18,501)	(9,002)	(2,228)	(15,273)
Provision (benefit) for income taxes	(4,561)	172	247	134	136
Net income (loss)	422	(18,673)	(9,249)	(2,362)	(15,409)
Cumulative preferred stock dividends[(3)]	—	(1,116)	(4,244)	(4,255)	(4,244)
Net income (loss) attributable to common stockholders	$ 422	$ (19,789)	$ (13,493)	$ (6,617)	$ (19,653)
Net income (loss) per share attributable to common stockholders[(4)][(5)]:					
Basic	$ 0.01	$ (0.70)	$ (1.17)	$ (0.60)	$ (1.95)
Diluted	$ 0.01	$ (0.70)	$ (1.17)	$ (0.60)	$ (1.95)
Weighted-average shares used to compute net income (loss) per share attributable to common stockholders[(5)]:					
Basic	39,663	28,217	11,488	11,096	10,099
Diluted	44,495	28,217	11,488	11,096	10,099

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

	Year Ended				
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
	(in thousands)				
Cost of revenue	$ 240	$ 166	$ 87	$ 78	$ 270
Sales and marketing	7,415	3,217	1,105	1,039	309
Technology and development	4,963	2,228	1,645	828	858
General and administrative	17,966	18,235	3,515	1,099	831
Total	$ 30,584	$ 23,846	$ 6,352	$ 3,044	$ 2,268

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

	Year Ended				
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
	(in thousands)				
Cost of revenue	$ 19,290	$ 10,494	$ 6,926	$ 5,809	$ 4,876
Sales and marketing	8,168	669	355	280	255
Technology and development	1,815	802	796	502	211
General and administrative	1,737	552	361	266	196
Total	$ 31,010	$ 12,517	$ 8,438	$ 6,857	$ 5,538

(3) The holders of our convertible preferred stock were entitled to cumulative dividends prior and in preference to common stock. Because the holders of our convertible preferred stock were entitled to participate in dividends, net income (loss) attributable to common stockholders is equal to net income (loss) adjusted for cumulative preferred stock dividends for the period. Immediately upon the closing of the initial public offering in April 2014, each outstanding share of convertible preferred stock was automatically converted into one-half of a share of our common stock and these holders were no longer entitled to the cumulative dividends. See Note 12 to our consolidated financial statements for a description of our convertible preferred stock.

(4) See Note 3 to our consolidated financial statements for a description of the method used to compute basic and diluted net (income) loss per share attributable to common stockholders.

(5) All share, per-share and related information has been retroactively adjusted, where applicable, to reflect the impact of a 1-for-2 reverse stock split, including an adjustment to the preferred stock conversion ratio, which was effected on March 18, 2014.

Consolidated Balance Sheet Data

	At December 31				
	2015	2014	2013	2012	2011
	(in thousands)				
Cash and cash equivalents	$ 116,499	$ 97,196	$ 29,956	$ 21,616	$ 16,252
Marketable securities, current and non-current	$ 36,732	$ —	$ —	$ —	$ —
Accounts receivable, net	$ 218,235	$ 133,267	$ 94,722	$ 67,335	$ 40,580
Property, equipment and capitalized software, net	$ 39,332	$ 26,697	$ 15,916	$ 12,697	$ 10,411
Total assets	$ 536,736	$ 296,481	$ 149,887	$ 108,014	$ 71,142
Debt and capital lease obligations, current and non-current	$ —	$ 105	$ 4,181	$ 5,215	$ 5,504
Total liabilities	$ 258,635	$ 167,729	$ 133,727	$ 90,005	$ 55,341
Convertible preferred stock	$ —	$ —	$ 52,571	$ 52,571	$ 52,571
Common stockholders' equity (deficit)	$ 278,101	$ 128,752	$ (36,411)	$ (34,562)	$ (36,770)

Operational and Financial Measures

	Year Ended				
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
Operational Measures:					
Managed revenue (in thousands)	$ 1,004,751	$ 667,796	$ 485,080	$ 338,918	$ 238,838
Paid impressions (in billions)	920	999	1,336	1,431	980
Average CPM	$ 1.09	$ 0.67	$ 0.36	$ 0.24	$ 0.24
Take Rate	22.6%	18.8%	17.3%	16.8%	15.5%
Financial Measures:					
Revenue (in thousands)	$ 248,484	$ 125,295	$ 83,830	$ 57,072	$ 37,059
Non-GAAP net revenue (in thousands)	$ 227,321	$ 125,295	$ 83,830	$ 57,072	$ 37,059
Adjusted EBITDA (in thousands)	$ 59,466	$ 19,098	$ 11,223	$ 9,205	$ (6,698)

Managed Revenue

Managed revenue is an operational measure that we define as the advertising spending transacted on our platform. Managed revenue does not represent revenue reported on a GAAP basis. We review managed revenue for internal management purposes to assess market share and scale. Tracking our managed revenue allows us to compare our results to the results of companies that report all spending transacted on their platforms as GAAP revenue. Our managed revenue is influenced by demand for our services, the volume and characteristics of paid impressions, and average CPM.

Our managed revenue has increased period over period as a result of increased use of our solution by buyers and sellers, increases in average CPM, and our buyer cloud initiatives, including the now consolidated and integrated Chango operations. We expect managed revenue to continue to grow with increases in the pricing or volume of transactions on our platform, which can result from increases in the number of buyers or advertising spending, and from improvements in our auction algorithms. This increase may fluctuate due to seasonality and increases or decreases in average CPM and paid impressions. In addition, we generally experience higher managed revenue during the fourth quarter of a given year, resulting from higher advertising spending and more bidding activity, which may drive higher volumes of paid impressions or average CPM.

The following tables set forth our managed revenue by inventory type and channel and our managed revenue by inventory type and channel as a percentage of total managed revenue for the periods presented:

	Year Ended			
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012
	(in thousands)			
Managed revenue by inventory type:				
RTB	$ 766,258	$ 505,156	$ 314,830	$ 171,195
Static	70,575	93,000	148,703	165,232
Orders	167,918	69,640	21,547	2,491
Total managed revenue	$ 1,004,751	$ 667,796	$ 485,080	$ 338,918
Managed revenue by channel:				
Desktop	$ 747,543	$ 553,922	$ 475,475	$ 338,703
Mobile	257,208	113,874	9,605	215
Total managed revenue	$ 1,004,751	$ 667,796	$ 485,080	$ 338,918

	Year Ended			
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012
Managed revenue by inventory type:				
RTB	76%	76%	65%	50%
Static	7%	14%	31%	49%
Orders	17%	10%	4%	1%
Total managed revenue	100%	100%	100%	100%
Managed revenue by channel:				
Desktop	74%	83%	98%	100%
Mobile	26%	17%	2%	—%
Total managed revenue	100%	100%	100%	100%

Paid Impressions

Paid impression is an operational measure that we define as an impression sold to an advertiser and subsequently displayed on a website or mobile application, which is transacted via our platform. We use paid impressions as one measure to assess the performance of our platform, including the effectiveness and efficiency at which buyers and sellers are trading via our platform and using our solution, and to assist us in tracking our revenue-generating performance and operational efficiencies. The number of paid impressions may fluctuate based on various factors, including the number and spending of buyers using our solution, the number of sellers, their allocation of advertising inventory using our solution, our traffic quality control initiatives, and the seasonality in our business. Because of the volatility of this metric, we believe that paid impressions are useful to review on an annual basis.

Average CPM

Average CPM (cost per thousand impressions) is an operational measure that represents the average price at which paid impressions are sold. We compute average CPM by dividing managed revenue by total paid impressions and multiplying by 1,000. We review average CPM for internal management purposes to assess buyer spending, liquidity in the marketplace, inventory quality, and integrity of our algorithms. Average CPM may be influenced by our inventory placements and demand for such inventory facilitated by our relationships with both buyers and sellers, as well as by a variety of other factors, including the precision of matching an advertisement to an audience, changes in our algorithms, seasonality, quality of inventory provided by sellers, penetration of various channels and advertising units, and changes in buyer spending levels. We expect average CPM to increase with the continued adoption of our solution by premium buyers and sellers, resulting in a higher quantity of premium advertising inventory available to advertisers. Because of the volatility of this metric, we believe that average CPM is useful to review on an annual basis.

Take Rate

Take rate is an operational measure that we define as non-GAAP net revenue divided by managed revenue. We review take rate for internal management purposes to assess the development of our marketplace with buyers and sellers. Our take rate can be affected by a variety of factors, including the terms of our arrangements with buyers and sellers active on our platform in a particular period, the scale of a buyer’s or seller’s activity on our platform, mix of inventory types, the implementation of new products, platforms and solution features, auction dynamics, and the overall development of the digital advertising ecosystem.

Non-GAAP Net Revenue

Non-GAAP net revenue is a financial measure that we define as GAAP revenue less amounts we pay sellers that are included within cost of revenue. Non-GAAP net revenue would represent our revenue if we were to record all of our revenue on a net basis. Non-GAAP net revenue does not represent revenue reported on a GAAP basis. We review non-GAAP net revenue for internal management purposes to assess performance. Non-GAAP net revenue is one useful measure in assessing the performance of our business because it shows the operating results of our business on a consistent basis without the effect of differing revenue reporting (gross vs. net) that we are required to apply under GAAP across different types of transactions. A potential limitation of non-GAAP net revenue is that other companies may define non-GAAP net revenue differently, which may make comparisons difficult. Our non-GAAP net revenue is influenced by demand for our services, the volume and characteristics of paid impressions, average CPM, our take rate, and the amounts we pay sellers.

The following table presents a reconciliation of revenue to non-GAAP net revenue for each of the periods indicated:

	Year Ended				
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
	(in thousands)				
Revenue	$ 248,484	$ 125,295	$ 83,830	$ 57,072	$ 37,059
Less amounts paid to sellers	21,163	—	—	—	—
Non-GAAP net revenue	$ 227,321	$ 125,295	$ 83,830	$ 57,072	$ 37,059

Adjusted EBITDA

Adjusted EBITDA is a non-GAAP financial measure that we define as net income (loss) adjusted to exclude stock-based compensation expense, depreciation and amortization, amortization of acquired intangible assets, interest income or expense, change in fair value of pre-IPO convertible preferred stock warrant liabilities, and other income or expense, which mainly consists of foreign exchange gains and losses, certain other non-recurring income or expenses such as acquisition and related costs, and provision (benefit) for income taxes. Adjusted EBITDA should not be considered as an alternative to net income (loss), operating loss, or any other measure of financial performance calculated and presented in accordance with GAAP. Adjusted EBITDA excludes non-cash and other items that we do not consider indicative of our core operating performance. We believe Adjusted EBITDA is useful to investors in evaluating our performance for the following reasons:

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

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

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

Our Adjusted EBITDA will be impacted by the rate at which our revenue increases and the timing of our investments in our operations. Please see below for a reconciliation of Adjusted EBITDA to net income (loss), the most directly comparable financial measure calculated in accordance with GAAP.

The following table presents a reconciliation of net income (loss), the most comparable GAAP measure, to Adjusted EBITDA for each of the periods indicated:

	Year Ended				
	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
	(in thousands)				
Financial Measures:					
Net income (loss)	$ 422	$ (18,673)	$ (9,249)	$ (2,362)	$ (15,409)
Add back (deduct):					
Depreciation and amortization expense, excluding amortization of acquired intangible assets	15,297	11,607	7,539	5,864	4,888
Amortization of acquired intangibles	15,713	910	899	993	650
Stock-based compensation expense	30,584	23,846	6,352	3,044	2,268
Acquisition and related items	3,470	1,513	313	503	500
Interest (income) expense, net	(59)	110	273	343	252
Change in fair value of preferred stock warrant liabilities	—	732	4,121	515	304
Foreign currency (gain) loss, net	(1,400)	(1,119)	728	171	216
Other income	—	—	—	—	(503)
Provision (benefit) for income taxes	(4,561)	172	247	134	136
Adjusted EBITDA	$ 59,466	$ 19,098	$ 11,223	$ 9,205	$ (6,698)

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the consolidated financial statements and the related notes to those statements included in Item 8 to this Annual Report on Form 10-K. In addition to historical financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, beliefs, and expectations and that involve risks and uncertainties. Our actual results and the timing of events could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in "Item 1A. Risk Factors" and the "Special Note Regarding Forward-Looking Statements."

Overview

We provide a complete technology solution to automate the purchase and sale of advertising for both buyers and sellers. Our highly scalable platform reaches approximately one billion Internet users globally on some of the world's leading websites and mobile applications. We help increase the volume and effectiveness of advertising, improving revenue for sellers and return on advertising investment for buyers. We believe our integration with leading global buyers and sellers of advertising and the benefits we provide to them give us a critical position in the digital advertising ecosystem.

Advertising takes different forms, referred to as advertising units, and is purchased and sold through different transactional methodologies, referred to as inventory types. Finally, it is presented to users through different channels. Our solution enables buyers and sellers to purchase and sell:

- a comprehensive range of advertising units, including display and video;
- utilizing various inventory types, including (i) direct sale of premium inventory, which we refer to as Orders, on a guaranteed, or fully reserved, basis, as well as on a non-guaranteed basis; (ii) real-time bidding, or RTB; and (iii) static bidding;
- across digital channels, including mobile web, mobile application and desktop, as well as across various out of home channels, such as digital billboards, that are in the early stages of leveraging our advertising automation platform.

Our platform features applications for digital advertising sellers, including websites, mobile applications and other digital media properties, to sell their advertising inventory; applications and services for buyers, including advertisers, agencies, agency trading desks, or ATDs, demand side platforms, or DSPs, and ad networks, to buy advertising inventory; and a marketplace over which such transactions are executed. Together, these features power and optimize a comprehensive, transparent, independent advertising marketplace that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the advertising inventory we manage on our platform.

Sellers of digital advertising use our platform to maximize revenue by accessing a global market of buyers representing top advertiser brands around the world to monetize their advertising inventory across inventory types, advertising units, and channels. We also help sellers decrease costs and protect their brands and user experience. Our relationships with our sellers are built on technical integration, which differentiates us from many other participants in the advertising ecosystem.

At the same time, buyers leverage our platform to manage their advertising spending across inventory types, advertising units, and channels, simplify order management and campaign tracking, obtain actionable insights into audiences for their advertising, and access impression-level purchasing from hundreds of sellers. We believe buyers need our platform because of our powerful solution and our direct relationships and integrations with some of the world's largest sellers.

Our platform incorporates proprietary machine-learning algorithms, sophisticated data processing, high-volume storage, detailed analytics capabilities, and a distributed infrastructure. We analyze billions of data points in real time to enable our solution to make approximately 300 data-driven decisions per transaction in milliseconds, and to execute up to 5 million peak queries per second, and over 9 trillion bid requests per month. Since 2012, we have processed approximately 200 trillion bid requests. Our solution is constantly self-optimizing based on our systems' ability to analyze and learn from vast volumes of data. The additional data we obtain from the volume of transactions on our platform help make our machine-learning algorithms more intelligent, leading to higher quality matching between buyers and sellers, better return on investment for buyers, and higher revenue for sellers. As a result of that high quality matching, we attract even more sellers which in turn attracts more buyers and vice versa. We believe this self-reinforcing dynamic creates a strong platform for growth.

During the early stages of our business following our incorporation in April 2007, our solution helped sellers to automate their existing advertising network relationships to match the right buyer with each impression, as well as increase their revenue and decrease their costs. Between 2008 and 2009, we developed direct relationships with buyers and created applications to assist buyers to increase their return on investment. During 2010, we added RTB capabilities, allowing sellers' inventory to be sold in an auction to buyers, creating a real-time unified auction where buyers compete to purchase sellers' advertising inventory. During 2012, we launched our private marketplace orders application, which allows sellers to connect directly with pre-approved buyers to execute direct sales of previously unsold advertising inventory.

Measured by inventory type, in 2015 the fastest-growing sources of our managed revenue were RTB and Orders, which also represent our most significant growth opportunities for the future. In December 2015, International Data Corporation, or IDC, estimated RTB was a $10.3 billion global market in 2015 and will increase to $20.5 billion by 2019, and Orders was a $3.7 billion global market in 2015 and will grow to $34.1 billion by 2019. The compound annual growth rate for these market opportunities is 41% on a combined basis. In addition, we are facilitating increasing spending in RTB and Orders on our platform via our expanded range of buyer capabilities. From a channel perspective, mobile advertising automation also represents a fast-growing market opportunity. Mobile advertising (excluding search advertising) was a $28.1 billion global market in 2015 that is expected to increase to $85.1 billion by 2019, according to IDC estimates.

To further capitalize on the growth opportunity in Orders, in 2014 we introduced the first generation of our guaranteed orders solution to automate the buying and selling of premium digital inventory on a fully reserved, or guaranteed, basis. In late 2014, we further expanded our orders automation technology and further increased our capabilities in the automated guaranteed market with the acquisition of two companies, iSocket, Inc., or iSocket, and Shiny Inc., or Shiny. The addition of iSocket and Shiny provided additional solutions to automate the buying and selling of direct-sold and guaranteed deals. Combined with our pre-existing orders technology, these acquisitions enabled us in 2015 to create a fully integrated solution for automating, streamlining, and managing the processes of direct buying and selling of guaranteed and non-guaranteed advertising.

In April 2015, we advanced our buyer capabilities through the strategic acquisition of Chango Inc., or Chango, an intent marketing technology company. The acquisition expanded our buyer capabilities and expertise and our direct integrations with premium brands and advertising agencies. The acquisition also reinforced our order automation technology, specifically through the advancement of our Orders (Guaranteed Orders and Non-Guaranteed Orders) platform. Transactions generated through our expanded buyer capabilities generally are through direct contractual relationships between us and the advertising agency or brand advertiser buyer.

In 2015, we also significantly advanced our mobile capabilities and grew our mobile managed revenue by 126% year-over-year through a combination of internal product development, strategic customer wins, driving increased revenue from existing buyer and seller customers, and international expansion.

Another industry trend is the expansion of automated buying and selling of advertising through new channels, including mobile, which has market growth rates exceeding those of the desktop channel and is a critical area of operational focus for us. The growth of automated buying and selling of advertising is also expanding into new markets, and in some markets the adoption of automated digital advertising is greater than in the United States. We intend to expand our business in existing territories served and enter new territories.

We generate revenue from buyers and sellers who use our solution for the purchase and sale of advertising inventory. Buyers use our solution to reach their intended audiences by purchasing advertising inventory that we make available or in some cases purchase from sellers through our solution. We recognize revenue upon the completion of a transaction, which is when an impression has been delivered to the consumer viewing a website or application, subject to satisfying all other revenue recognition criteria. We generally bill and collect the full purchase price of impressions from buyers in RTB transactions, together with other fees, if applicable. For arrangements in which pricing is determined through our auction process and we are not the primary obligor for the purchase of advertising inventory, or for those arrangements whereby we generate revenue directly from sellers who maintain the primary relationship with buyers and utilize our solution to transact and optimize their activities, we have determined we do not act as the principal and accordingly we report revenue on a net basis. For arrangements in which we manage advertising campaigns on behalf of the buyer by acting as the primary obligor in the purchase of advertising inventory, we exercise discretion in establishing prices, we have credit risk, and we independently select and purchase inventory from the seller, we have determined that we act as the principal and accordingly we report revenue on a gross basis. For additional information refer to the revenue recognition policy described in “Critical Accounting Policies and Estimates.”

For the year ended December 31, 2015, our revenue was $248.5 million, and we reported net income of $0.4 million and Adjusted EBITDA of $59.5 million. For the year ended December 31, 2014, our revenue was $125.3 million, and we reported a net loss of $18.7 million and Adjusted EBITDA of $19.1 million. For the year ended December 31, 2013, our revenue was $83.8 million, and we reported a net loss of $9.2 million and Adjusted EBITDA of $11.2 million. At December 31, 2015 and 2014, our assets were $536.7 million and $296.5 million, respectively. For information on how we compute Adjusted EBITDA, and a reconciliation of Adjusted EBITDA to net income (loss) on a GAAP basis, please refer to “Certain Operational and Financial Measures.”

Advertising spending transacted on our platform has grown significantly. Managed revenue is an operational measure that represents this advertising spending. Managed revenue would represent our revenue if we were to record our revenue on a gross basis instead of a net basis. Managed revenue does not represent revenue reported on a GAAP basis. We review managed revenue for internal management purposes to assess market share and scale and to compare our performance to others in our industry that report revenue on a gross basis. Our managed revenue was $1.0 billion in 2015, which represents a 50% increase over managed revenue of $667.8 million in 2014, and a 107% increase over managed revenue of $485.1 million in 2013. In the years ended December 31, 2015, 2014, and 2013, approximately 35%, 42%, and 40%, respectively, of our managed revenue was generated from international markets based on the location of our sellers. Our net income (loss) and Adjusted EBITDA will be impacted by the rate at which our revenue increases, seasonality, and the amount and timing of our investments in our operations.

Our managed revenue, revenue, cash flow from operations, Adjusted EBITDA, operating results and other key operating and financial measures may vary from quarter to quarter due to the seasonal nature of buyer spending. For example, many buyers devote a disproportionate amount of their advertising budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing. We expect our revenue, cash flow, operating results and other key operating and financial measures to fluctuate based on seasonal factors from period to period and expect these measures to be higher in the fourth quarters than in prior quarters.

In addition to the United States, we have significant personnel and operations in Canada, England, France, and Australia, and additional personnel and operations in Germany, Italy, Japan, Singapore, and Brazil. As of December 31, 2015, 203 of our 699 employees were based outside the United States.

We operate our business on a worldwide basis, with an established operating presence in North America and Europe and a developing presence in Asia and Latin America. In the years ended December 31, 2015, 2014, and 2013, approximately 31%, 42%, and 39%, respectively, of our revenue was generated from international markets based on the location of our sellers. With the exception of approximately $40.9 million in intangible assets in Canada, substantially all of our assets are U.S. assets. Excluding Canada, our non-U.S. subsidiaries and operations perform primarily sales, marketing, and service functions.

Certain Operational and Financial Measures

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
Operational Measures:			
Managed revenue (in thousands)	$ 1,004,751	$ 667,796	$ 485,080
Paid impressions (in billions)	920	999	1,336
Average CPM	$ 1.09	$ 0.67	$ 0.36
Take Rate	22.6%	18.8%	17.3%
Financial Measures:			
Revenue (in thousands)	$ 248,484	$ 125,295	$ 83,830
Non-GAAP net revenue (in thousands)	$ 227,321	$ 125,295	$ 83,830
Adjusted EBITDA (in thousands)	$ 59,466	$ 19,098	$ 11,223

Managed Revenue

Managed revenue is an operational measure that we define as the advertising spending transacted on our platform. Managed revenue does not represent revenue reported on a GAAP basis. We review managed revenue for internal management purposes to assess market share and scale. Tracking our managed revenue allows us to compare our results to the results of companies that report all spending transacted on their platforms as GAAP revenue. Our managed revenue is influenced by demand for our services, the volume and characteristics of paid impressions, and average CPM.

Our managed revenue has increased period over period as a result of increased use of our solution by buyers and sellers, increases in average CPM, and our buyer cloud initiatives, including the now consolidated and integrated Chango operations. We expect managed revenue to continue to grow with increases in the pricing or volume of transactions on our platform, which can result from increases in the number of buyers or advertising spending, and from improvements in our auction algorithms. This increase may fluctuate due to seasonality and increases or decreases in average CPM and paid impressions. In addition, we generally experience higher managed revenue during the fourth quarter of a given year, resulting from higher advertising spending and more bidding activity, which may drive higher volumes of paid impressions or average CPM.

Our solution enables buyers and sellers to transact through our comprehensive inventory offerings and channels. The following tables present managed revenue by inventory type and channel and managed revenue by inventory type and channel as a percentage of total managed revenue for the years ended December 31, 2015, 2014, and 2013:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
		(in thousands)	
Managed revenue by inventory type:			
RTB	$ 766,258	$ 505,156	$ 314,830
Static	70,575	93,000	148,703
Orders	167,918	69,640	21,547
Total managed revenue	$ 1,004,751	$ 667,796	$ 485,080
Managed revenue by channel:			
Desktop	$ 747,543	$ 553,922	$ 475,475
Mobile	257,208	113,874	9,605
Total managed revenue	$ 1,004,751	$ 667,796	$ 485,080

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
Managed revenue by inventory type:			
RTB	76%	76%	65%
Static	7%	14%	31%
Orders	17%	10%	4%
Total managed revenue	100%	100%	100%
Managed revenue by channel:			
Desktop	74%	83%	98%
Mobile	26%	17%	2%
Total managed revenue	100%	100%	100%

Paid Impressions

Paid impression is an operational measure that we define as an impression sold to an advertiser and subsequently displayed on a website or mobile application, which is transacted via our platform. We use paid impressions as one measure to assess the performance of our platform, including the effectiveness and efficiency at which buyers and sellers are trading via our platform and using our solution, and to assist us in tracking our revenue-generating performance and operational efficiencies. The number of paid impressions may fluctuate based on various factors, including the number and spending of buyers using our solution, the number of sellers, their allocation of advertising inventory using our solution, our traffic quality control initiatives, and the seasonality in our business. Because of the volatility of this metric, we believe that paid impressions are useful to review on an annual basis.

Average CPM

Average CPM (cost per thousand impressions) is an operational measure that represents the average price at which paid impressions are sold. We compute average CPM by dividing managed revenue by total paid impressions and multiplying by 1,000. We review average CPM for internal management purposes to assess buyer spending, liquidity in the marketplace, inventory quality, and integrity of our algorithms. Average CPM may be influenced by our inventory placements and demand for such inventory facilitated by our relationships with both buyers and sellers, as well as by a variety of other factors, including the precision of matching an advertisement to an audience, changes in our algorithms, seasonality, quality of inventory provided by sellers, penetration of various channels and advertising units, and changes in buyer spending levels. We expect average CPM to increase with the continued adoption of our solution by premium buyers and sellers, resulting in a higher quantity of premium advertising inventory available to advertisers. Because of the volatility of this metric, we believe that average CPM is useful to review on an annual basis.

Take Rate

Take rate is an operational measure that we define as non-GAAP net revenue divided by managed revenue. We review take rate for internal management purposes to assess the development of our marketplace with buyers and sellers. Our take rate can be affected by a variety of factors, including the terms of our arrangements with buyers and sellers active on our platform in a particular period, the scale of a buyer's or seller's activity on our platform, mix of inventory types, the implementation of new products, platforms and solution features, auction dynamics, and the overall development of the digital advertising ecosystem.

Non-GAAP Net Revenue

Non-GAAP net revenue is a financial measure that we define as GAAP revenue less amounts we pay sellers that are included within cost of revenue. Non-GAAP net revenue would represent our revenue if we were to record all of our revenue on a net basis. Non-GAAP net revenue does not represent revenue reported on a GAAP basis. We review non-GAAP net revenue for internal management purposes to assess performance. Non-GAAP net revenue is one useful measure in assessing the performance of our business because it shows the operating results of our business on a consistent basis without the effect of differing revenue reporting (gross vs. net) that we are required to apply under GAAP across different types of transactions. A potential limitation of non-GAAP net revenue is that other companies may define non-GAAP net revenue differently, which may make comparisons difficult. Our non-GAAP net revenue is influenced by demand for our services, the volume and characteristics of paid impressions, average CPM, our take rate, and the amounts we pay sellers.

The following table presents a reconciliation of revenue to non-GAAP net revenue for the years ended December 31, 2015, 2014, and 2013. Before our acquisition of Chango in April 2015 and our resulting Buyer Cloud integration, we reported all revenue on a net basis and therefore payments to sellers were not included in the cost of revenue before that date.

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Revenue	$ 248,484	$ 125,295	$ 83,830
Less amounts paid to sellers	21,163	—	—
Non-GAAP net revenue	$ 227,321	$ 125,295	$ 83,830

Adjusted EBITDA

Adjusted EBITDA is a non-GAAP financial measure that we define as net income (loss) adjusted to exclude stock-based compensation expense, depreciation and amortization, amortization of acquired intangible assets, interest income or expense, change in fair value of pre-IPO convertible preferred stock warrant liabilities, and other income or expense, which mainly consists of foreign exchange gains and losses, certain other non-recurring income or expenses such as acquisition and related costs, and provision (benefit) for income taxes. Adjusted EBITDA should not be considered as an alternative to net income (loss), operating loss, or any other measure of financial performance calculated and presented in accordance with GAAP. Adjusted EBITDA excludes non-cash and other items that we do not consider indicative of our core operating performance. We believe Adjusted EBITDA is useful to investors in evaluating our performance for the following reasons:

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

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

- stock-based compensation is a non-cash charge and is and will remain an element of our long-term incentive compensation package, although we exclude it as an expense when evaluating our ongoing operating performance for a particular period;

- depreciation and amortization are non-cash charges, and the assets being depreciated or amortized will often have to be replaced in the future, but Adjusted EBITDA does not reflect any cash requirements for these replacements;
- Adjusted EBITDA does not reflect non-cash charges related to acquisition and related items, such as amortization of acquired intangible assets and changes in the fair value of contingent consideration;
- Adjusted EBITDA does not reflect changes in, or cash requirements for, acquisition and related items, such as transaction expenses and expenses associated with earn-out amounts;
- Adjusted EBITDA does not reflect changes in our working capital needs, capital expenditures, or contractual commitments;
- Adjusted EBITDA does not reflect cash requirements for income taxes and the cash impact of other income or expense; and
- other companies may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Our Adjusted EBITDA will be impacted by the rate at which our revenue increases and the timing of our investments in our operations. Please see below for a reconciliation of Adjusted EBITDA to net income (loss), the most directly comparable financial measure calculated in accordance with GAAP.

The following table presents a reconciliation of net income (loss), the most comparable GAAP measure, to Adjusted EBITDA for the years ended December 31, 2015, 2014, and 2013:

	Year Ended		
	December 31, 2015	**December 31, 2014**	**December 31, 2013**
		(in thousands)	
Financial Measures:			
Net income (loss)	$ 422	$ (18,673)	$ (9,249)
Add back (deduct):			
Depreciation and amortization expense, excluding amortization of acquired intangible assets	15,297	11,607	7,539
Amortization of acquired intangibles	15,713	910	899
Stock-based compensation expense	30,584	23,846	6,352
Acquisition and related items	3,470	1,513	313
Interest (income) expense, net	(59)	110	273
Change in fair value of preferred stock warrant liabilities	—	732	4,121
Foreign currency (gain) loss, net	(1,400)	(1,119)	728
Provision (benefit) for income taxes	(4,561)	172	247
Adjusted EBITDA	$ 59,466	$ 19,098	$ 11,223

Components of Our Results of Operations

Revenue

We generate revenue from buyers and sellers who use our solution for the purchase and sale of advertising inventory. Our solution enables buyers and sellers to purchase and sell advertising inventory, matches buyers and sellers, and establishes rules and parameters for open and transparent auctions of advertising inventory. Buyers use our solution to reach their intended audiences by buying advertising inventory that we make available from sellers through our solution or advertising inventory we purchase from third-party exchanges. Sellers use our solution to monetize their inventory. We generally recognize revenue upon the completion of a transaction, that is, when an impression has been made available to the consumer viewing a website or mobile application, subject to satisfying all other revenue recognition criteria. We are responsible for the completion of the transaction. We generally bill and collect the full purchase price of impressions from buyers, together with other fees, if applicable. We report revenue on a net basis for arrangements for which pricing is determined through our auction process, we are not the primary obligor, and for which we have determined we do not act as the principal in the purchase and sale of advertising inventory. We report revenues on a gross basis for arrangements on which we act as the principal in the purchase and sale of advertising inventory, namely, arrangements for which we have direct contractual relationships with the buyer which we manage advertising campaigns on behalf of the buyer by acting as the primary obligor in the purchase of advertising inventory, we exercise discretion in establishing prices, we have credit risk, and we independently select and purchase inventory from the seller. In some cases, we generate revenue directly from sellers who maintain the primary relationship with buyers and utilize our solution to transact and optimize their activities. Our accounts receivable are recorded at the amount of gross billings to buyers, net of allowances, for the amounts we are responsible to collect, and our accounts payable are recorded at the net amount payable to sellers. Accordingly, both accounts receivable and accounts payable appear large in relation to revenue reported on a net basis.

Our revenue, cash flow from operations, operating results, and certain operational and financial performance may vary from quarter to quarter due to the seasonal nature of advertiser spending, as well as other circumstances that affect advertising activity. For example, many advertisers devote a disproportionate amount of their advertising budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing. Moreover, advertising inventory in the fourth quarter may be more expensive due to increased demand. Historically, the fourth quarter of the year reflects our highest level of revenue, and the first quarter reflects the lowest level of our revenue.

Our revenue recognition policies are discussed in more detail in the notes to our consolidated financial statements presented in "Item 8. Financial Statements and Supplementary Data."

Expenses

We classify our expenses into the following four categories:

Cost of Revenue. Our cost of revenue consists primarily of amounts we pay sellers for transactions for which we are the principal and report revenues on a gross basis, 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, and facilities-related costs. Amounts we pay sellers include the cost of advertising impressions we purchase from sellers through third-party exchanges in transactions for which we are the principal. 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. Many of these expenses are generally fixed and do not increase or decrease in direct proportion to increases or decreases in our revenue.

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, marketing expenses such as brand marketing, travel expenses, trade shows and marketing materials, professional services, and amortization expense associated with customer relationships and backlog from our business acquisitions, and to a lesser extent, facilities-related costs and depreciation and amortization. Our sales organization focuses on marketing our solution to increase the adoption of our solution by existing and new buyers and sellers. We amortize acquired intangibles associated with customer 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 professional services associated with the ongoing development and maintenance of our solution, and to a lesser extent, facilities-related costs and depreciation and amortization, including amortization expense associated with acquired intangible assets from our business acquisitions that are related to technology and development functions. These expenses include costs incurred in the development, implementation, and maintenance of internal use software, including platform and related infrastructure. Technology and development costs are expensed as incurred, except to the extent that such costs are associated with internal use software development that qualifies for capitalization, which are then recorded as internal use software development costs, net on our 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, associated with our executive, finance, legal, human resources, compliance, and other administrative personnel, as well as accounting and legal professional services fees, facilities-related costs and depreciation, and other corporate-related expenses. General and administrative expenses also include amortization of internal use software development costs and acquired intangible assets from our business acquisitions over their estimated useful lives that relate to general and administrative functions and changes in fair value associated with the liability-classified contingent consideration related to acquisitions.

Other Expense, Net

Interest Expense, Net. Interest expense is mainly related to our credit facility and capital lease arrangements. Interest income consists of interest earned on our cash equivalents and marketable securities and was insignificant for the years ended December 31, 2015, 2014, and 2013.

Change in Fair Value of Convertible Preferred Stock Warrant Liability. Prior to our initial public offering, or IPO, the convertible preferred stock warrants were subject to re-measurement to fair value at each balance sheet date, and any change in fair value was recognized as a component of other expense, net. In connection with the closing of our IPO in April 2014, one warrant for 845,867 shares of convertible preferred stock was exercised on a net basis, resulting in the issuance of 286,055 shares of common stock, and the remaining warrant for 25,174 shares of convertible preferred stock was automatically converted into a warrant exercisable for 12,587 shares of common stock. Following the closing of our IPO, we are no longer required to re-measure the converted common stock warrants to fair value and record any changes in the fair value of these liabilities in our consolidated statements of operations. The common stock warrant was net exercised in June 2014. As of December 31, 2015, we had no outstanding warrants.

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, Euro, Canadian Dollar, and Australian Dollar.

Provision (Benefit) for Income Taxes

Provision (benefit) for income taxes consists primarily of federal, state, and foreign income taxes. Due to uncertainty as to the realization of benefits from our domestic and certain international deferred tax assets, including net operating loss carryforwards and research and development tax credits, we have a full valuation allowance reserved against such 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. However, given our current earnings and anticipated future earnings, we believe that there is a reasonable possibility that within the next 12 months, sufficient positive evidence may become available to allow us to reach a conclusion that a significant portion of the domestic valuation allowance will no longer be needed. Release of the valuation allowance would result in the recognition of certain deferred tax assets and a decrease to income tax expense 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 actually achieve.

Results of Operations

The following tables set forth our consolidated results of operations and our consolidated results of operations as a percentage of revenue for the periods presented:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands, except per share data)		
Revenue	$ 248,484	$ 125,295	$ 83,830
Expenses:			
Costs of revenue[1][2]	58,495	20,754	15,358
Sales and marketing[1][2]	83,333	43,203	25,811
Technology and development[1][2]	42,055	22,718	18,615
General and administrative[1][2]	70,199	57,398	27,926
Total expenses	254,082	144,073	87,710
Loss from operations	(5,598)	(18,778)	(3,880)
Other (income) expense	(1,459)	(277)	5,122
Loss before income taxes	(4,139)	(18,501)	(9,002)
Provision (benefit) for income taxes	(4,561)	172	247
Net income (loss)	$ 422	$ (18,673)	$ (9,249)

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Cost of revenue	$ 240	$ 166	$ 87
Sales and marketing	7,415	3,217	1,105
Technology and development	4,963	2,228	1,645
General and administrative	17,966	18,235	3,515
Total stock-based compensation expense	$ 30,584	$ 23,846	$ 6,352

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Cost of revenue	$ 19,290	$ 10,494	$ 6,926
Sales and marketing	8,168	669	355
Technology and development	1,815	802	796
General and administrative	1,737	552	361
Total depreciation and amortization expense	$ 31,010	$ 12,517	$ 8,438

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

	Year Ended *		
	December 31, 2015	December 31, 2014	December 31, 2013
Revenue	100 %	100 %	100 %
Cost of revenue	24 %	17 %	18 %
Sales and marketing	34 %	34 %	31 %
Technology and development	17 %	18 %	22 %
General and administrative	28 %	46 %	33 %
Total expenses	102 %	115 %	105 %
Loss from operations	(2)%	(15)%	(5)%
Other (income) expense, net	(1)%	— %	6 %
Loss before income taxes	(2)%	(15)%	(11)%
Provision (benefit) for income taxes	(2)%	— %	— %
Net income (loss)	— %	(15)%	(11)%

* Certain figures may not sum due to rounding.

Comparison of the Years Ended December 31, 2015, 2014, and 2013

Revenue

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
		(in thousands)	
Revenue	$ 248,484	$ 125,295	$ 83,830

Revenue increased $123.2 million, or 98%, for the year ended December 31, 2015 compared to the year ended December 31, 2014. The increase in revenue was primarily due to an increase in the amount of advertising spending on our platform during the year ended December 31, 2015 compared to the year ended December 31, 2014. The increase in revenue was also attributable to an increase in average CPM to $1.09 for the year ended December 31, 2015 from $0.67 for the year ended December 31, 2014, an increase of $0.42, or 63%. This increase in average CPM during the period was due to increased matching efficiency and a shift in mix of managed revenue, or advertising spend on our platform, from lower-priced higher-volume inventory mainly associated with static bidding to higher-priced lower-volume inventory mainly associated with RTB and Orders. The increase in average CPM was partially offset by a decrease in paid impressions resulting from the same shift in mix of advertising spend on our platform from static bidding to RTB and Orders. The increase in CPM was partially offset by a decrease in paid impressions from 999 billion for the year ended December 31, 2014 to 920 billion for the year ended December 31, 2015, a decrease of 8%. However, paid impressions associated with RTB and Orders increased during the year ended December 31, 2015 compared to the year ended December 31, 2014, while paid impressions associated with static bidding decreased. The increase in revenue was also due to the impact of the gross revenue reporting for buyer cloud initiatives, following the acquisition of Chango as discussed earlier, for which the vast majority of the revenue is reported on a gross basis given the nature of the arrangements and our role as the principal in those arrangements.

Revenue increased $41.5 million, or 49%, for the year ended December 31, 2014 compared to the year ended December 31, 2013 primarily for the same reasons described above. The increase was primarily attributable to an increase in average CPM of $0.31, or 86%, partially offset by a decrease of 25% in paid impressions during the year ended December 31, 2014 compared to the year ended December 31, 2013. This increase in average CPM during the period was due to an increase in average spend per buyer transacted on our platform in association with increased matching efficiency. In addition, the increase in average CPM was due to a shift in mix of advertising spend on our platform from lower-priced higher-volume static inventory to higher-priced lower-volume RTB transactions. Our paid impressions decreased during the year ended December 31, 2014 compared to the year ended December 31, 2013 due to the shift in mix of advertising spend on our platform from lower-priced higher-volume static inventory to higher-priced lower-volume RTB transactions and our traffic quality control initiatives put into place during the last several months of 2013 to maintain a high standard of quality advertising inventory and reduce lower quality traffic.

We expect revenue to continue to grow on an annual basis. Revenue may be impacted by seasonality, changes in the amounts we are able to charge buyers and sellers for our services, and other factors such as changes in the market, our execution of the business, and competition.

Cost of Revenue

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands, except percentages)		
Cost of revenue	$ 58,495	$ 20,754	$ 15,358
Percent of revenue	24%	17%	18%

Cost of revenue increased by $37.7 million, or 182%, for the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to the addition to cost of revenue of $21.2 million in amounts we pay sellers for transactions we report on a gross revenue basis, because we are the primary obligor, an increase of $8.8 million in depreciation and amortization expense, and an increase in data center, hosting, and bandwidth costs of $6.2 million. The increase in amounts we pay sellers was primarily attributable to buyer cloud initiatives for which the vast majority of revenues are reported on a gross basis with corresponding reporting of cost of revenues. The increase in depreciation and amortization was primarily attributable to an increase in amortization of developed technology acquired in our business combinations, depreciation of computer equipment and network hardware, and amortization of capitalized internal use software primarily due to additional personnel and their development of new features and functionality to our solution. The amortization of developed technology acquired in our business combinations reflected in cost of revenue was $6.3 million and $0.6 million for the years ended December 31, 2015 and 2014, respectively. The amortization of capitalized internal use software reflected in cost of revenue was $6.5 million and $4.9 million for the years ended December 31, 2015 and 2014, respectively. The increases in data center, hosting, and bandwidth costs were primarily to support the increase in the use of our platform and international expansion efforts requiring additional data centers, hardware, software, and maintenance expenses. As a percentage of revenue, cost of revenue increased for the year ended December 31, 2015 compared to the year ended December 31, 2014 primarily as a result of the inclusion of amounts we pay sellers in cost of revenue attributable to buyer cloud initiatives for which the vast majority of revenues are reported on a gross basis during the year ended December 31, 2015, which were not include in cost of revenue during the year ended December 31, 2014.

Cost of revenue increased by $5.4 million, or 35%, for the year ended December 31, 2014 compared to the year ended December 31, 2013. This increase was primarily due to an increase of $3.6 million in depreciation and amortization expense and an increase in data center, hosting, and bandwidth costs of $1.2 million. The increase in depreciation and amortization was primarily attributable to an increase in depreciation of computer equipment and network hardware and amortization of capitalized internal use software primarily due to additional personnel and their development of new features and functionality to our solution. The amortization of capitalized internal use software, including the write-off of software development costs, reflected in cost of revenue was $4.9 million and $2.6 million for the years ended December 31, 2014 and 2013, respectively. The increases in data center, hosting, and bandwidth costs were primarily due to the same reasons described above.

We expect cost of revenue to increase in absolute dollars in future periods as we continue to invest additional capital into our data centers, increase amounts we pay sellers as a result of an increase in transactions we report on a gross revenue basis, hire additional personnel to continue to build and maintain our systems, and invest in our technology. As a percentage of revenue, cost of revenue may fluctuate on a quarterly basis depending on revenue levels, the amounts we pay sellers for transactions in which we are the primary obligor, the timing of investments, and due to increased amortization of acquired technology from business combinations.

Sales and Marketing

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands, except percentages)		
Sales and marketing	$ 83,333	$ 43,203	$ 25,811
Percent of revenue	34%	34%	31%

Sales and marketing expense increased by $40.1 million, or 93%, for the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to an increase in personnel costs of $25.0 million, and to a lesser extent, an increase in depreciation and amortization of $7.5 million. The increase in personnel costs was primarily due to an increase in sales and marketing headcount resulting from continued hiring and our recent acquisitions. The increase in depreciation and amortization was mainly related to amortization of customer relationships and backlog acquired in our business combinations.

Sales and marketing expense increased by $17.4 million, or 67%, for the year ended December 31, 2014 compared to the year ended December 31, 2013. This increase was primarily due to an increase in personnel costs of $13.4 million, and to a lesser extent, an increase in marketing expenses of $1.1 million. The increase in personnel costs was primarily due to an increase in sales and marketing headcount in order to support our sales efforts and continue to develop and maintain relationships with buyers and sellers, as well as an increase in marketing, which was mainly related to our participation in industry events and tradeshows and related public relations activities.

We expect sales and marketing expenses to increase in absolute dollars in future periods as we continue to invest in our business, including expanding our domestic and international business. Sales and marketing expense as a percentage of revenue may fluctuate from period to period based on revenue levels, the timing of our investments, the seasonality in our industry and business, and increased amortization as a result of customer relationship intangibles acquired in our business combinations.

Technology and Development

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands, except percentages)		
Technology and development	$ 42,055	$ 22,718	$ 18,615
Percent of revenue	17%	18%	22%

Technology and development expense increased by $19.3 million, or 85%, for the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to an increase in personnel costs of $14.6 million resulting from an increase in headcount as a result of our recent acquisitions and continued hiring of engineers to maintain and support our technology and development efforts.

Technology and development expense increased by $4.1 million, or 22%, for the year ended December 31, 2014 compared to the year ended December 31, 2013. This increase was primarily due to an increase in personnel costs of $3.3 million, primarily due to the same reasons described above.

We expect technology and development expense to increase in absolute dollars in future periods as we continue to invest in our engineering and technology teams to support our technology and development efforts; however, the timing and amount of our capitalized development and enhancement projects may affect the amount of development costs expensed in any given period. Technology and development expense as a percentage of revenue may fluctuate from period to period based on revenue levels, the timing of these investments, the timing and the rate of the amortization of capitalized projects, and increased amortization as a result of non-compete intangibles acquired in our business combinations.

General and Administrative

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands, except percentages)		
General and administrative	$ 70,199	$ 57,398	$ 27,926
Percent of revenue	28%	46%	33%

General and administrative expense increased by $12.8 million, or 22%, for the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to an increase in personnel costs of $6.5 million, an increase in professional services costs of $2.3 million, and to a lesser extent, an increase in depreciation and amortization of $1.2 million. The increase in personnel costs was primarily due to increased headcount. The increase in professional services costs was primarily due to transaction related services. The increase in depreciation and amortization was mainly related to amortization of non-compete agreements and trademarks acquired in our business combinations. As a percentage of revenue, general and administrative expenses decreased for the year ended December 31, 2015 compared to the year ended December 31, 2014 primarily as a result of revenue increasing at a higher percentage compared to the increase in general and administrative expenses as well as the full year effect in the year ended December 31, 2014 of the increase in headcount and third-party professional services fees related to supporting our operations as a public company.

General and administrative expense increased by $29.5 million, or 106%, for the year ended December 31, 2014 compared to the year ended December 31, 2013. This increase was primarily due to an increase in personnel costs of $23.5 million and an increase in professional services fees of $2.6 million. The increase in personnel costs was primarily due to an increase in stock-based compensation of $14.7 million and increased headcount. The increase in stock-based compensation expense was primarily associated with equity awards granted subsequent to December 31, 2013. The increase in headcount and third-party professional services fees was primarily related to supporting our operations as a public company.

We expect general and administrative expense to increase in absolute dollars as we continue to invest in corporate infrastructure to support our growth and our operation as a public company, including professional services fees, insurance premiums and compliance costs. In addition, general and administrative expense is expected to be impacted as a result of changes to the fair value of contingent consideration liabilities associated with our acquisitions. General and administrative expenses may fluctuate from period to period based on the timing of our investments and related expenditures in our general and administrative functions as they vary in scope and scale over periods which may not be directly proportional to changes in revenue.

Other (Income) Expense, Net

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Interest (income) expense, net	$ (59)	$ 110	$ 273
Change in fair value of preferred stock warrant liabilities	—	732	4,121
Foreign exchange (gain) loss, net	(1,400)	(1,119)	728
Total other (income) expense, net	$ (1,459)	$ (277)	$ 5,122

Following the closing of our IPO, we were no longer required to re-measure the warrants to fair value and record any changes in the fair value of these liabilities in our consolidated statements of operations, and accordingly, we did not record any related expenses subsequent to the closing of our IPO.

Foreign exchange (gain) loss, net is impacted by movements in exchange rates, primarily the British Pound and Euro relative to the U.S. Dollar, and the amount of foreign-currency denominated receivables and payables, which are impacted by our billings to buyers and payments to sellers. The foreign currency gains, net during the year ended December 31, 2015 and 2014, respectively, were primarily attributable to the strengthening of the U.S. Dollar in relation to the British Pound and Euro for foreign denominated transactions. The foreign currency loss, net during the year ended December 31, 2013 was primarily attributable to the weakening of the U.S. Dollar in relation to the British Pound and Euro for foreign denominated transactions.

Provision (Benefit) for Income Taxes

We recorded an income tax benefit for the year ended December 31, 2015 of $4.6 million and an income tax expense for the years ended December 31, 2014 and 2013 of $0.2 million and $0.2 million, respectively. The tax benefit for the year ended December 31, 2015 is the result of the net operating losses generated by our Canadian operations, which include acquisitions from the last two years.

At December 31, 2015, we had U.S. federal net operating loss carryforwards, or NOLs, of approximately $59.8 million, which will begin to expire in 2027. At December 31, 2015, we had state NOLs of approximately $54.8 million, which will also begin to expire in 2027. At December 31, 2015, the Company had foreign NOLs of approximately $13.7 million, which will begin to expire in 2026. At December 31, 2015, we had federal research and development tax credit carryforwards, or credit carryforwards, of approximately $6.1 million, which will begin to expire in 2027. At December 31, 2015, we had state research and development tax credits of approximately $5.1 million, which carry forward indefinitely. At December 31, 2015, the Company had foreign research tax credits of approximately $0.5 million, which carry forward indefinitely. Utilization of certain NOLs and credit carryforwards may be subject to an annual limitation due to ownership change limitations set forth in the Code and similar state provisions. Any future annual limitation may result in the expiration of NOLs and credit carryforwards before utilization. A prior ownership change and certain acquisitions resulted in us having NOLs subject to insignificant annual limitations.

Quarterly Results of Operations and Key Metrics

The following tables set forth our quarterly consolidated statements of operations data in dollars and as a percentage of total revenue for each of the eight quarters in the two-year period ended December 31, 2015. We have prepared the quarterly unaudited consolidated statements of operations data on a basis consistent with the audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. In the opinion of management, the financial information in these tables reflects all adjustments, consisting only of normal recurring adjustments, which management considers necessary for a fair statement of this data. This information should be read in conjunction with the audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The results of historical periods are not necessarily indicative of the results for any future period.

	Three Months Ended								
	Mar. 31, 2014	**June 30, 2014**		**Sept. 30, 2014**	**Dec. 31, 2014**	**Mar. 31, 2015**	**June 30, 2015**	**Sept. 30, 2015**	**Dec. 31, 2015**
	(in thousands)								
Revenue	$ 23,015	$ 28,283		$ 32,165	$ 41,832	$ 37,178	$ 53,046	$ 64,253	$ 94,007
Expenses:									
Costs of revenue[(1)(2)]	4,460	4,852		5,144	6,298	6,561	14,009	16,556	21,369
Sales and marketing[(1)(2)]	9,027	10,296		11,540	12,340	15,049	22,161	22,817	23,306
Technology and development[(1)(2)]	4,677	4,598		5,766	7,677	8,414	10,390	11,822	11,429
General and administrative[(1)(2)]	11,320	15,653	15,653	15,157	15,268	14,279	17,984	18,225	19,711
Total expenses	29,484	35,399		37,607	41,583	44,303	64,544	69,420	75,815
Income (loss) from operations	(6,469)	(7,116)		(5,442)	249	(7,125)	(11,498)	(5,167)	18,192
Other (income) expense, net	(405)	2,138		(803)	(1,207)	(2,178)	858	(75)	(64)
Income (loss) before income taxes	(6,064)	(9,254)		(4,639)	1,456	(4,947)	(12,356)	(5,092)	18,256
Provision (benefit) for income taxes	50	112		(17)	27	84	(413)	(2,083)	(2,149)
Net income (loss)	$ (6,114)	$ (9,366)		$ (4,622)	$ 1,429	$ (5,031)	$ (11,943)	$ (3,009)	$ 20,405
Net income (loss) per share attributable to common stockholders:									
Basic	$ (0.59)	$ (0.29)		$ (0.14)	$ 0.04	$ (0.14)	$ (0.30)	$ (0.07)	$ 0.48
Diluted	$ (0.59)	$ (0.29)		$ (0.14)	$ 0.04	$ (0.14)	$ (0.30)	$ (0.07)	$ 0.43
Weighted-average shares used to compute net income (loss) per share attributable to common stockholders:									
Basic	12,215	32,266		33,673	34,411	35,758	39,414	41,308	42,083
Diluted	12,215	32,266		33,673	38,052	35,758	39,414	41,308	47,396

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

	Three Months Ended							
	Mar. 31, 2014	June 30, 2014	Sept. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015
	(in thousands)							
Cost of revenue	$ 31	$ 57	$ 39	$ 39	$ 42	$ 70	$ 65	$ 63
Sales and marketing	577	700	793	1,147	1,125	1,858	2,197	2,235
Technology and development	303	424	530	971	790	1,116	1,525	1,532
General and administrative	1,567	5,918	5,788	4,962	3,541	4,695	5,013	4,717
Total stock-based compensation expense	$ 2,478	$ 7,099	$ 7,150	$ 7,119	$ 5,498	$ 7,739	$ 8,800	$ 8,547

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

	Three Months Ended							
	Mar. 31, 2014	June 30, 2014	Sept. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015
	(in thousands)							
Cost of revenue	$ 1,985	$ 2,241	$ 2,607	$ 3,661	$ 3,471	$ 5,258	$ 5,270	$ 5,291
Sales and marketing	80	109	143	337	505	3,240	2,286	2,137
Technology and development	198	192	171	241	254	479	526	556
General and administrative	112	136	149	155	160	482	539	556
Total depreciation and amortization expense	$ 2,375	$ 2,678	$ 3,070	$ 4,394	$ 4,390	$ 9,459	$ 8,621	$ 8,540

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

	Three Months Ended*							
	Mar. 31, 2014	June 30, 2014	Sept. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015
Revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Expenses:								
Cost of revenue	19	17	16	15	18	26	26	23
Sales and marketing	39	36	36	29	40	42	36	25
Technology and development	20	16	18	18	23	20	18	12
General and administrative	49	55	47	36	38	34	28	21
Total expenses	128	125	117	99	119	122	108	81
Income (loss) from operations	(28)	(25)	(17)	1	(19)	(22)	(8)	19
Other (income) expense, net	(2)	8	(2)	(3)	(6)	2	—	—
Income (loss) before income taxes	(26)	(33)	(14)	4	(13)	(23)	(8)	19
Provision (benefit) for income taxes	—	—	—	—	—	(1)	(3)	(2)
Net income (loss)	(27)%	(33)%	(14)%	4 %	(14)%	(23)%	(5)%	22 %

* Certain figures may not sum due to rounding.

Key Operational and Financial Measures

	Three Months Ended							
	Mar. 31, 2014	June 30, 2014	Sept. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015
	(in thousands, except for percentages)							
Operational Measures:								
Managed revenue	$ 129,566	$ 153,540	$ 168,213	$ 216,477	$ 197,220	$ 227,152	$ 244,358	$ 336,021
Take Rate	17.8%	18.4%	19.1%	19.3%	18.9%	21.4%	23.7%	24.9%
Financial Measures:								
Revenue	$ 23,015	$ 28,283	$ 32,165	$ 41,832	$ 37,178	$ 53,046	$ 64,253	$ 94,007
Non-GAAP net revenue	$ 23,015	$ 28,283	$ 32,165	$ 41,832	$ 37,178	$ 48,544	$ 57,867	$ 83,732
Adjusted EBITDA	$ (1,616)	$ 2,661	$ 4,778	$ 13,275	$ 4,192	$ 6,667	$ 12,575	$ 36,032

For information on how we define operational metrics and financial measures see "—Key Operational and Financial Measures." For more information as to the limitations of using non-GAAP measurements, see "Selected Financial Data."

The following table presents a reconciliation of revenue to non-GAAP net revenue:

	Three Months Ended							
	Mar. 31, 2014	June 30, 2014	Sept. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015
	(in thousands)							
Revenue	$ 23,015	$ 28,283	$ 32,165	$ 41,832	$ 37,178	$ 53,046	$ 64,253	$ 94,007
Less amounts paid to sellers	—	—	—	—	—	4,502	6,386	10,275
Non-GAAP net revenue	$ 23,015	$ 28,283	$ 32,165	$ 41,832	$ 37,178	$ 48,544	$ 57,867	$ 83,732

The following table presents a reconciliation of Adjusted EBITDA to net income (loss), the most directly comparable financial measure calculated in accordance with GAAP:

	Three Months Ended							
	Mar. 31, 2014	June 30, 2014	Sept. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015
	(in thousands)							
Financial Measures:								
Net income (loss)	$ (6,114)	$ (9,366)	$ (4,622)	$ 1,429	$ (5,031)	$ (11,943)	$ (3,009)	$ 20,405
Add back (deduct):								
Depreciation and amortization expense, excluding amortization of acquired intangible assets	2,232	2,560	3,002	3,813	3,374	4,191	3,832	3,900
Amortization of acquired intangibles	143	118	68	581	1,016	5,268	4,789	4,640
Stock-based compensation expense	2,478	7,099	7,150	7,119	5,498	7,739	8,800	8,547
Acquisition and related items	—	—	—	1,513	1,429	967	321	753
Interest (income) expense, net	57	14	23	16	12	11	(37)	(45)
Change in fair value of preferred stock warrant liabilities	(1,010)	1,742	—	—	—	—	—	—
Foreign currency (gain) loss, net	548	382	(826)	(1,223)	(2,190)	847	(38)	(19)
Provision (benefit) for income taxes	50	112	(17)	27	84	(413)	(2,083)	(2,149)
Adjusted EBITDA	$ (1,616)	$ 2,661	$ 4,778	$ 13,275	$ 4,192	$ 6,667	$ 12,575	$ 36,032

Liquidity and Capital Resources

From our incorporation in April 2007 until our IPO, we financed our operations and capital expenditures primarily through private sales of convertible preferred stock, our use of our credit facilities, and cash generated from operations. Between 2007 and 2010, we raised $52.6 million from the sale of preferred stock. On April 7, 2014, we completed our IPO and received proceeds from the offering of approximately $86.2 million after deducting the underwriting discounts and commissions and offering expenses. At December 31, 2015, we had cash and cash equivalents of $116.5 million, of which $15.4 million was held in foreign currency cash accounts, and restricted cash of $0.3 million. We have also been able to fund acquisitions by using stock as a source of capital.

At December 31, 2015, we had no amounts outstanding under our credit facility with Silicon Valley Bank, or SVB, and $40.0 million was available for additional borrowings.

At our option, loans under the credit facility may bear interest based on either the LIBOR rate or the prime rate plus, in each case, an applicable margin. The applicable margins under the credit facility are (i) 2.00% or 3.50% per annum in the case of LIBOR rate loans, and (ii) 0.00% or 1.50% per annum in the case of prime rate loans (based on SVB's net exposure to us after giving effect to unrestricted cash held at SVB and its affiliates plus up to $3 million held at other institutions). In addition, an unused revolver fee in the amount of 0.15% per annum of the average unused portion of the credit facility is payable by us to SVB monthly in arrears.

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

In addition, in the event that the amount available to be drawn is less than 20% of the maximum amount of the credit facility, or if an event of default exists, we are required to satisfy a minimum fixed charge coverage ratio test of 1.10 to 1.00. At December 31, 2015, our fixed charge coverage ratio was 163.6 to 1.0.

The credit facility 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 credit facility). Following an event of default, SVB would be entitled to, among other things, accelerate payment of amounts due under the credit facility and exercise all rights of a secured creditor. We were in compliance with the covenants under the credit facility at December 31, 2015.

We believe our existing cash and cash flow from operations, together with the undrawn balance under our credit facility with SVB, will be sufficient to meet our working capital requirements for at least the next 12 months. However, our liquidity assumptions may prove to be incorrect, and we could utilize our available financial resources sooner than we currently expect, particularly if we decide to pursue an acquisition or other strategic investment. Our future capital requirements and the adequacy of available funds will depend on many factors, including those set forth in Item 1A: "Risk Factors."

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

There can be no assurances that we will be able to raise additional capital, which would 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:

	Year Ended December 31, 2015	Year Ended December 31, 2014	Year Ended December 31, 2013
	(in thousands)		
Cash flows provided by operating activities	$ 76,856	$ 6,645	$ 21,092
Cash flows used in investing activities	(72,861)	(23,123)	(11,862)
Cash flows provided by (used in) financing activities	15,468	83,794	(796)
Effects of exchange rate changes on cash and cash equivalents	(160)	(76)	(94)
Change in cash and cash equivalents	$ 19,303	$ 67,240	8,340

Operating Activities

Our cash flows from operating activities are primarily influenced by increases or decreases in receipts from buyers and related payments to sellers, as well as our investment in personnel and infrastructure to support the anticipated growth of our business. Cash flows from operating activities have been further affected by changes in our working capital, particularly changes in accounts receivable and accounts payable. The timing of cash receipts from buyers and payments to sellers can significantly impact our cash flows from operating activities for any period presented. We typically collect from buyers in advance of payments to sellers; our collection and payment cycle can vary from period to period depending upon various circumstances, including seasonality. As our revenue earned directly from advertisers and agencies increases, the amount of receipts from buyers collected in advance of payments to sellers will decrease.

For the year ended December 31, 2015, cash provided by operating activities of $76.9 million resulted from our net income of $0.4 million, non-cash expenses of $56.6 million, and net changes in our working capital of $19.8 million. The net change in operating working capital was primarily related to an increase in accounts payable and accrued expenses of approximately $93.1 million, offset by an increase in accounts receivable of approximately $71.8 million, an increase in prepaid expenses and other current assets of approximately $1.1 million, and a decrease in other liabilities of $0.4 million. The increase in prepaid expenses and other current assets was primarily due to an increase in business activity and the timing of payments to vendors. The decrease in other liabilities was primarily due to a decrease in business activity associated with the timing of payments to tax authorities. The changes in accounts payable and accrued expenses and accounts receivable was primarily due to the timing of cash receipts from buyers and the timing of payments to sellers.

For the year ended December 31, 2014, cash provided by operating activities of $6.6 million resulted from our net loss of $18.7 million, offset by non-cash expenses of $36.5 million and net changes in our working capital of $11.1 million. The net change in operating working capital was primarily related to an increase in accounts receivable of approximately $38.0 million, an increase in prepaid expenses and other current assets of approximately $2.2 million, and a decrease in other liabilities of $0.8 million, partially offset by an increase in accounts payable and accrued expenses of approximately $29.9 million. The increase in prepaid expenses and other current assets was primarily due to an increase in business activity associated with the timing of payments to vendors. The decrease in other liabilities was primarily due to a decrease in business activity associated with the timing of payments to tax authorities. The changes in accounts payable and accrued expenses and accounts receivable was primarily due to the timing of cash receipts from buyers and the timing of payments to sellers.

For the year ended December 31, 2013, cash provided by operating activities of $21.1 million resulted from our net loss of $9.2 million, adjusted for non-cash expenses of $19.0 million, and net changes in our working capital of $11.4 million. The net change in working capital was primarily related to an increase in accounts payable and accrued expenses of approximately $39.2 million, partially offset by an increase in accounts receivable of approximately $27.1 million. The changes in accounts payable and accrued expenses and accounts receivable was primarily due to the timing of cash receipts from buyers and the timing of payments to sellers.

Investing Activities

Our primary investing activities have consisted of investments in available-for-sale securities, acquisitions of businesses, purchases of property and equipment in support of our expanding headcount as a result of our growth, and capital expenditures to develop our internal use software in support of creating and enhancing our technology infrastructure. Purchases of property and equipment and investments in internal use software development may vary from period-to-period due to the timing of the expansion of our operations, the addition of headcount and the development cycles of our internal use software development. As our business grows, we expect our capital expenditures and our investment activity to continue to increase.

During the year ended December 31, 2015, we used $72.9 million of cash in investing activities, consisting primarily of $48.8 million of investments in available-for-sale securities, $20.1 million in investments in property and equipment, net of amounts reflected in accounts payable and accrued expenses at December 31, 2015, $8.6 million for the acquisition of Chango, net of cash acquired, and $8.3 million of investments in our internal use software. These cash outflows were partially offset by maturities of available-for-sale securities of $12.0 million and a decrease in restricted cash of $1.0 million in conjunction with our corporate office building lease.

During the year ended December 31, 2014, we used $23.1 million of cash in investing activities, consisting of $10.7 million in investments in property and equipment and $8.8 million of investments in our internal use software, net of amounts reflected in accounts payable and accrued expenses at December 31, 2014. In addition, during the year ended December 31, 2014, we used $4.6 million for the acquisition of Shiny Inc., net of cash acquired, which was partially offset by cash of $0.6 million assumed in the acquisition of iSocket, Inc. In conjunction with our corporate office building lease, restricted cash decreased by $0.3 million.

During the year ended December 31, 2013, we used $11.9 million of cash in investment activities, consisting of $6.8 million of investments in property and equipment, net of amounts financed through capital leases, $3.9 million of investments in our internal use software, and $1.2 million of cash reclassified to restricted cash in conjunction with our corporate office building lease.

Financing Activities

Our financing activities consisted primarily of proceeds and expenses from our IPO, borrowings and repayments under our Silicon Valley Bank credit facility, including equipment loans, and the issuance of shares of common stock upon the exercise of stock options.

For the year ended December 31, 2015, cash provided by financing activities of $15.5 million was primarily due to proceeds of $13.5 million from stock option exercises and proceeds of $2.0 million from issuance of common stock under the employee stock purchase plan.

For the year ended December 31, 2014, cash provided by financing activities of $83.8 million was primarily due to the net proceeds received from our IPO of $89.7 million, net of underwriting commissions and discounts, and proceeds of $3.5 million from stock option exercises, offset by the repayment of our Silicon Valley Bank credit facility and payments on our capital lease obligations of $4.1 million, payments of $3.0 million for offering costs related to our IPO, and payments of $2.3 million for taxes paid related to a net share settlement of stock-based awards.

For the year ended December 31, 2013, cash used in financing activities of $0.8 million was primarily due to payments of $1.2 million on our debt and capital lease obligations, partially offset by proceeds of $0.9 million from stock option exercises.

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 December 31, 2015 other than the operating leases and the indemnification agreements described below.

Contractual Obligations and Known Future Cash Requirements

Our principal commitments consist of leases for our various office facilities, including our corporate headquarters in Los Angeles, California, and non-cancelable operating lease agreements with data centers that expire at various times through January 2024. In certain cases, the terms of the lease agreements provide for rental payments on a graduated basis.

The following table summarizes our contractual obligations, including interest, at December 31, 2015:

	2016	2017	2018	2019	2020	Thereafter	Total
				(in thousands)			
Operating lease obligations	6,432	5,835	5,656	4,910	3,197	1,626	27,656
Total minimum payments	$ 6,432	$ 5,835	$ 5,656	$ 4,910	$ 3,197	$ 1,626	$ 27,656

At December 31, 2015, liabilities for unrecognized tax benefits of $4.3 million, which are attributable to U.S. income taxes, were not included in our contractual obligations because, due to their nature, there is a high degree of uncertainty regarding the time of future cash outflows and other events that extinguish these liabilities.

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 material demands have been made upon us to provide indemnification under such agreements and there are no claims that we are aware of that could have a material effect on our consolidated financial statements.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with GAAP. The preparation of these 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 assumptions and estimates associated with the evaluation of revenue recognition criteria, including the determination of revenue recognition as net versus gross in our revenue arrangements, internal-use software development costs, including assumptions used in the valuation models to determine the fair value of stock options and stock-based compensation expense, the assumptions used in the valuation of acquired assets and liabilities in business combinations, and income taxes, including the realization of tax assets and estimates of tax liabilities, have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

Revenue Recognition

We have updated our revenue recognition policy to include transactions for which we manage campaigns on behalf of buyers, function as principal, and therefore report the related revenue on a gross basis.

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

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

As a result of the acquisition of Chango, we began entering into arrangements for which we manage advertising campaigns on behalf of buyers. We are the principal in these arrangements as we: (i) are the primary obligor in the advertising inventory purchase transaction; (ii) establish the purchase prices paid by the buyer; (iii) perform all billing and collection activities including the retention of credit risk; (iv) have latitude in selecting suppliers; (v) negotiate the price we pay to suppliers of inventory; and (vi) make all inventory purchasing decisions. Accordingly, for these arrangements we report revenue on a gross basis.

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

Cash, Cash Equivalents, and Marketable Securities

We have updated our cash and cash equivalents policy to include marketable securities.

We invest excess cash primarily in money market funds, corporate debt securities, and highly liquid debt instruments of the U.S. government and its agencies. We classify investments held in money market funds as cash equivalents included in cash and cash equivalents as they have weighted-average maturities at the date of purchase of less than 90 days, U.S. government and agency bonds and corporate debt securities with stated maturities of less than one year as short-term investments included in marketable securities, prepaid expenses, and other current assets, and U.S. government and agency bonds and corporate debt securities with stated maturities of over a year as long-term investments included in marketable securities and other assets, non-current on our consolidated balance sheets, as we do not expect to redeem or sell these securities within one year from the balance sheet date.

We determine the appropriate classification of investments in marketable securities at the time of purchase and reevaluate such designation at each balance sheet date. We classify and account for our marketable securities as available-for-sale, and as a result carry the securities at fair value and report the unrealized gains and losses in the consolidated statements of comprehensive income (loss) and as a component of stockholders' equity. We determine any realized gains or losses on the sale of marketable securities on a specific identification method, and we record such gains and losses as a component of other income, net on our consolidated statements of operations.

Internal Use Software Development Costs

We capitalize certain internal use software development costs associated with creating and enhancing internally developed software related to our technology infrastructure. These costs include personnel and related employee benefits expenses for employees who are directly associated with and who devote time to software projects, and external direct costs of materials and services consumed in developing or obtaining the software. Software development costs that do not meet the qualification for capitalization, as further discussed below, are expensed as incurred and recorded in technology and development expenses in the results of operations.

Software development activities generally consist of three stages, (i) the planning stage, (ii) the application and infrastructure development stage, and (iii) the post implementation stage. Costs incurred in the planning and post implementation stages of software development, including costs associated with the post-configuration training and repairs and maintenance of the developed technologies, are expensed as incurred. We capitalize costs associated with software developed for internal use when both the preliminary project stage is completed, management has authorized further funding for the completion of the project, and it is probable that the project will be completed and perform as intended. Costs incurred in the application and infrastructure development stages, including significant enhancements and upgrades, are capitalized. Capitalization ends once a project is substantially complete and the software and technologies are ready for their intended purpose. Internal use software development costs are amortized using a straight-line method over the estimated useful life of three years, commencing when the software is ready for its intended use. The straight-line recognition method approximates the manner in which the expected benefit will be derived.

We do not transfer ownership of our software, or lease our software, to third parties.

Stock-Based Compensation

Compensation expense related to employee stock-based awards is measured and recognized in the consolidated financial statements based on the fair value of the awards granted. We have granted awards to employees that vest based solely on continued service, or service conditions, awards that vest based on the achievement of performance targets, or performance conditions, and awards that vest based on our stock price exceeding a peer index, or market conditions. The fair value of each option award containing service and/or performance conditions is estimated on the grant date using the Black-Scholes option-pricing model. The fair value of awards containing market conditions is estimated using a Monte-Carlo lattice model. For service condition awards, stock-based compensation expense is recognized on a straight-line basis, net of forfeitures, over the requisite service periods of the awards, which is generally four years. For performance condition and market condition awards, stock-based compensation expense is recognized using a graded vesting model over the requisite service period of the awards. For market condition awards, expense recognized is not subsequently reversed if the market conditions are not achieved.

Stock-based awards issued to non-employees are accounted for at fair value determined by using the Black-Scholes option-pricing model. We believe that the fair value of the stock options is more reliably measured than the fair value of the services received. The fair value of each non-employee stock-based compensation award is re-measured each period until a commitment date is reached, which is generally the vesting date.

Determining the fair value of stock-based awards at the grant date requires judgment. Our use of the Black-Scholes option-pricing model and Monte-Carlo lattice model requires the input of subjective assumptions such as the expected term of the option, the expected volatility of the price of our common stock, risk-free interest rates, the expected dividend yield of our common stock, and for periods prior to our IPO, the fair value of our common stock. The assumptions used in our valuation models represent management's best estimates. These estimates involve inherent uncertainties and the application of management's judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future.

These assumptions and estimates are as follows:

Fair Value of Common Stock. For stock options granted subsequent to our IPO, the fair value of common stock is based on the closing price of our common stock as reported on the New York Stock Exchange, or the NYSE, on the date of grant. Prior to the IPO, the board of directors determined the fair value of the common stock at the time of the grant of options and restricted stock awards by considering a number of objective and subjective factors. The fair value was determined in accordance with applicable elements of the practice aid issued by the American Institute of Certified Public Accountants titled Valuation of Privately Held Company Equity Securities Issued as Compensation.

Risk-Free Interest Rate. We base the risk-free interest rate used in the Black-Scholes option-pricing model on the yields of U.S. Treasury securities with maturities appropriate for the term of employee stock option awards.

Expected Term. For employee options that contain service conditions, we apply the simplified approach, in which the expected term of an award is presumed to be the mid-point between the vesting date and the expiration date of the award. The expected term of employee stock options that contain performance conditions represents the weighted-average period that the stock options are estimated to remain outstanding.

Volatility. Because we do not have significant trading history for our common stock, we determine the price volatility based on the historical volatilities of a publicly traded peer group based on daily price observations over a period equivalent to the expected term of the stock option grants.

Dividend Yield. The dividend yield assumption is based on our history and current expectations of dividend payouts. We have never declared or paid any cash dividends on our common stock and we do not anticipate paying any cash dividends in the foreseeable future, so we used an expected dividend yield of zero.

The following table summarizes the weighted-average assumptions used in the Black-Scholes option-pricing model to determine the fair value of our stock options:

	Year Ended		
	December 31, 2015	**December 31, 2014**	**December 31, 2013**
Common stock price	$ 16.82	$ 13.88	$ 8.76
Expected term (in years)	4.5	5.7	6.0
Risk-free interest rate	1.30%	1.75%	1.28%
Expected volatility	47%	51%	58%
Dividend yield	—%	—%	—%

In addition to the above assumptions, we also estimate a forfeiture rate to calculate the stock-based compensation expense for stock-based awards. Our forfeiture rate is based on an analysis of our historical forfeitures and estimated future forfeitures. Changes in the estimated forfeiture rate may have a significant impact on our stock-based compensation expense as the cumulative effect of adjusting the rate is recognized in the period the forfeiture estimate is changed.

We will continue to use judgment in evaluating the assumptions related to our stock-based compensation. Future expense amounts for any particular period could be affected by changes in our assumptions or market conditions.

Due to the full valuation allowance provided on our net deferred tax assets, we have not recorded any tax benefit attributable to stock-based awards for the years ended December 31, 2015, 2014, and 2013.

Business Combinations

The results of businesses acquired in a business combination are included in our consolidated financial statements from the date of acquisition. We allocate the purchase price, which is the sum of the consideration provided, which may consist of cash, equity or a combination of the two, in a business combination to the identifiable assets and liabilities of the acquired business at their acquisition date fair values. The excess of the purchase price over the amount allocated to the identifiable assets and liabilities, if any, is recorded as goodwill. Determining the fair value of assets acquired and liabilities assumed requires management to use significant judgment and estimates including the selection of valuation methodologies, estimates of future revenues and cash flows, discount rates and selection of comparable companies.

When we issue stock-based or cash awards to an acquired company's stockholders, we evaluate whether the awards are contingent consideration or compensation for post-business combination services. The evaluation includes, among other things, whether the vesting of the awards is contingent on the continued employment of the selling stockholder beyond the acquisition date. If continued employment is required for vesting, the awards are treated as compensation for post-acquisition services and recognized as expense over the requisite service period.

We estimate the fair value of intangible assets acquired generally using a discounted cash flow approach, which includes an analysis of the future cash flows expected to be generated by the asset and the risk associated with achieving these cash flows. The key assumptions used in the discounted cash flow model include the discount rate that is applied to the forecasted future cash flows to calculate the present value of those cash flows and the estimate of future cash flows attributable to the acquired intangible asset, which include revenue, expenses and taxes. The carrying value of acquired working capital assets and liabilities approximates its fair value, given the short-term nature of these assets and liabilities.

Acquisition-related transaction costs are not included as a component of consideration transferred, but are accounted for as an expense in the period in which the costs are incurred.

Income Taxes

Deferred income tax assets and liabilities are determined based upon the net tax effects of the differences between our consolidated financial statements carrying amounts and the tax basis of assets and liabilities and are measured using the enacted tax rate expected to apply to taxable income in the years in which the differences are expected to be reversed.

A valuation allowance is used to reduce some or all of the deferred tax assets if, based upon the weight of available evidence, it is more likely than not that those deferred tax assets will not be realized. We have established a full valuation allowance to offset our domestic net deferred tax assets due to the uncertainty of realizing future tax benefits from the net operating loss carryforwards and other deferred tax assets.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized. We recognize interest and penalties accrued related to our uncertain tax positions in our income tax provision (benefit) in the accompanying consolidated statements of operations.

We recognize excess tax benefits associated with stock-based compensation to stockholders' equity only when realized based on applying a with-and-without approach.

Recently Issued Accounting Pronouncements

For information regarding recent accounting pronouncements, refer to Note 2 of Item 8 "Financial Statements and Supplementary Data" included in this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosure About Market Risk

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

Interest Rate Fluctuation Risk

Our cash and cash equivalents consist of cash and money market funds. Our investments consist of U.S. government and agency bonds and corporate debt securities. The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. Because our cash, cash equivalents, and investments have a relatively short maturity, our portfolio's fair value is relatively insensitive to interest rate changes. Our line of credit is at variable interest rates. We had no amounts outstanding under our credit facility at December 31, 2015. We do not believe that an increase or decrease in interest rates of 100 basis points would have a material effect on our operating results or financial condition. In future periods, we will continue to evaluate our investment policy relative to our overall objectives.

Foreign Currency Exchange Risk

We have foreign currency risks related to our revenue and expenses denominated in currencies other than the U.S. Dollar, principally British Pounds and Euros. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. We have experienced and will continue to experience fluctuations in our net income (loss) as a result of transaction gains and losses related to translating certain cash balances, trade accounts receivable and payable balances and intercompany balances that are denominated in currencies other than the U.S. Dollar. The effect of an immediate 10% adverse change in foreign exchange rates on foreign-denominated accounts at December 31, 2015, including intercompany balances, would result in a foreign currency loss of approximately $3.0 million. In the event our non-U.S. Dollar denominated sales and expenses increase, our operating results may be more greatly affected by fluctuations in the exchange rates of the currencies in which we do business. At this time we do not, but we may in the future, enter into derivatives or other financial instruments in an attempt to hedge our foreign currency exchange risk. It is difficult to predict the impact hedging activities would have on our results of operations.

Inflation Risk

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

Item 8. Financial Statements and Supplementary Data

The Rubicon Project, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The supplementary financial information required by this Item 8 is included in Item 7 under the caption "Quarterly Results of Operations and Key Metrics."

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of The Rubicon Project, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income (loss), convertible preferred stock and stockholders' equity (deficit) and cash flows present fairly, in all material respects, the financial position of The Rubicon Project, Inc. and its subsidiaries (the "Company") at December 31, 2015 and 2014 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
March 4, 2016

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

	December 31, 2015	December 31, 2014
ASSETS		
Current assets:		
Cash and cash equivalents	$ 116,499	$ 97,196
Accounts receivable, net	218,235	133,267
Marketable securities, prepaid expenses, and other current assets	30,973	7,514
TOTAL CURRENT ASSETS	365,707	237,977
Property and equipment, net	25,403	15,196
Internal use software development costs, net	13,929	11,501
Goodwill	65,705	16,290
Intangible assets, net	50,783	14,090
Marketable securities and other assets, non-current	15,209	1,427
TOTAL ASSETS	$ 536,736	$ 296,481
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 247,967	$ 151,021
Debt and capital lease obligations, current portion	—	105
Other current liabilities	2,196	3,276
TOTAL CURRENT LIABILITIES	250,163	154,402
Other liabilities, non-current	2,247	1,272
Deferred tax liability, net	6,225	607
Contingent consideration liabilities	—	11,448
TOTAL LIABILITIES	258,635	167,729
Commitments and contingencies (Note 17)		
STOCKHOLDERS' EQUITY		
Preferred stock, $0.00001 par value, 10,000 shares authorized at December 31, 2015 and December 31, 2014; 0 shares issued and outstanding at December 31, 2015 and December 31, 2014	—	—
Common stock, $0.00001 par value; 500,000 shares authorized at December 31, 2015 and December 31, 2014; 46,600 and 37,192 shares issued and outstanding at December 31, 2015 and December 31, 2014, respectively	—	—
Additional paid-in capital	358,406	209,472
Accumulated other comprehensive loss	(15)	(8)
Accumulated deficit	(80,290)	(80,712)
TOTAL STOCKHOLDERS' EQUITY	278,101	128,752
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 536,736	$ 296,481

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

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
Revenue	$ 248,484	$ 125,295	$ 83,830
Expenses:			
Cost of revenue	58,495	20,754	15,358
Sales and marketing	83,333	43,203	25,811
Technology and development	42,055	22,718	18,615
General and administrative	70,199	57,398	27,926
Total expenses	254,082	144,073	87,710
Loss from operations	(5,598)	(18,778)	(3,880)
Other (income) expense			
Interest (income) expense, net	(59)	110	273
Change in fair value of preferred stock warrant liabilities	—	732	4,121
Foreign exchange (gain) loss, net	(1,400)	(1,119)	728
Total other (income) expense, net	(1,459)	(277)	5,122
Loss before income taxes	(4,139)	(18,501)	(9,002)
Provision (benefit) for income taxes	(4,561)	172	247
Net income (loss)	422	(18,673)	(9,249)
Cumulative preferred stock dividends	—	(1,116)	(4,244)
Net income (loss) attributable to common stockholders	$ 422	$ (19,789)	$ (13,493)
Net income (loss) per share attributable to common stockholders:			
Basic	$ 0.01	$ (0.70)	$ (1.17)
Diluted	$ 0.01	$ (0.70)	$ (1.17)
Weighted-average shares used to compute net income (loss) per share attributable to common stockholders:			
Basic	39,663	28,217	11,488
Diluted	44,495	28,217	11,488

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

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
Net income (loss)	$ 422	$ (18,673)	$ (9,249)
Other comprehensive income (loss):			
Unrealized loss on investments, net of tax	(68)	—	—
Foreign currency translation adjustments	61	(104)	1
Comprehensive income (loss)	$ 415	$ (18,777)	$ (9,248)

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

THE RUBICON PROJECT, INC.
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)

	Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance at December 31, 2012	28,820	$ 52,571	11,401	$ —	$ 18,133	$ 95	$ (52,790)	$ (34,562)
Exercise of common stock options	—	—	454	—	866	—	—	866
Stock-based compensation	—	—	—	—	6,533	—	—	6,533
Foreign exchange translation adjustment	—	—	—	—	—	1	—	1
Net loss	—	—	—	—	—	—	(9,249)	(9,249)
Balance at December 31, 2013	28,820	52,571	11,855	—	25,532	96	(62,039)	(36,411)
Exercise of common stock options	—	—	1,360	—	3,498	—	—	3,498
Restricted stock awards	—	—	2,168	—	—	—	—	—
Shares withheld related to net share settlement	—	—	(174)	—	(2,324)	—	—	(2,324)
Issuance of common stock related to RSU vesting	—	—	4	—	—	—	—	—
Net exercise of warrant for convertible preferred stock	572	—	—	—	5,983	—	—	5,983
Conversion of convertible preferred stock to common stock	(29,392)	(52,571)	14,696	—	52,571	—	—	52,571
Conversion of warrant for convertible preferred stock to common stock warrant	—	—	—	—	200	—	—	200
Issuance of common stock from initial public offering, net of issuance costs	—	—	6,432	—	86,200	—	—	86,200
Net exercise of warrant for common stock	—	—	10	—	—	—	—	—
Issuance of common stock and exchange of stock options related to acquisitions	—	—	841	—	13,342	—	—	13,342
Stock-based compensation	—	—	—	—	24,470	—	—	24,470
Foreign exchange translation adjustment	—	—	—	—	—	(104)	—	(104)
Net loss	—	—	—	—	—	—	(18,673)	(18,673)
Balance at December 31, 2014	—	—	37,192	—	209,472	(8)	(80,712)	128,752
Exercise of common stock options	—	—	2,552	—	13,533	—	—	13,533
Restricted stock awards	—	—	479	—	—	—	—	—
Issuance of common stock related to RSU vesting	—	—	229	—	—	—	—	—
Issuance of common stock related to employee stock purchase plan	—	—	170	—	2,040	—	—	2,040
Issuance of common stock and exchange of stock options related to acquisition	—	—	4,425	—	76,350	—	—	76,350
Issuance of common stock for contingent consideration associated with acquisitions	—	—	1,553	—	25,608	—	—	25,608
Stock-based compensation	—	—	—	—	31,403	—	—	31,403
Foreign exchange translation adjustment	—	—	—	—	—	61	—	61
Unrealized loss on investments, net of tax	—	—	—	—	—	(68)	—	(68)
Net income	—	—	—	—	—	—	422	422
Balance at December 31, 2015	—	$ —	46,600	$ —	$ 358,406	$ (15)	$ (80,290)	$ 278,101

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

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
OPERATING ACTIVITIES:			
Net income (loss)	$ 422	$ (18,673)	$ (9,249)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	31,010	12,517	8,438
Stock-based compensation	30,584	23,846	6,352
Loss (gain) on disposal of property and equipment, net	58	202	(7)
Change in fair value of preferred stock warrant liabilities	—	732	4,121
Change in fair value of contingent consideration	306	66	—
Unrealized foreign currency (gains) losses, net	(72)	(763)	68
Deferred income taxes	(5,286)	(145)	—
Changes in operating assets and liabilities, net of effect of business acquisitions:			
Accounts receivable	(71,796)	(38,023)	(27,102)
Prepaid expenses and other assets	(1,073)	(2,152)	(1,966)
Accounts payable and accrued expenses	93,135	29,861	39,168
Other liabilities	(432)	(823)	1,269
Net cash provided by operating activities	76,856	6,645	21,092
INVESTING ACTIVITIES:			
Purchases of property and equipment, net	(20,104)	(10,706)	(6,785)
Capitalized internal use software development costs	(8,333)	(8,779)	(3,926)
Acquisitions, net of cash acquired	(8,647)	(3,983)	—
Investments in available-for-sale securities	(48,801)	—	—
Maturities of available-for-sale securities	12,001	—	—
Change in restricted cash	1,023	345	(1,151)
Net cash used in investing activities	(72,861)	(23,123)	(11,862)
FINANCING ACTIVITIES:			
Proceeds from the issuance of common stock in initial public offering, net of underwriting discounts and commissions	—	89,733	—
Payments of initial public offering costs	—	(3,037)	(496)
Proceeds from exercise of stock options	13,533	3,498	866
Proceeds from issuance of common stock under employee stock purchase plan	2,040	—	—
Taxes paid related to net share settlement	—	(2,324)	—
Repayment of debt and capital lease obligations	(105)	(4,076)	(1,166)
Net cash provided by (used in) financing activities	15,468	83,794	(796)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(160)	(76)	(94)
CHANGE IN CASH AND CASH EQUIVALENTS	19,303	67,240	8,340
CASH AND CASH EQUIVALENTS--Beginning of period	97,196	29,956	21,616
CASH AND CASH EQUIVALENTS--End of period	$ 116,499	$ 97,196	$ 29,956
SUPPLEMENTAL DISCLOSURES OF OTHER CASH FLOW INFORMATION:			
Cash paid for income taxes	$ 1,069	$ 403	$ 307
Cash paid for interest	$ 62	$ 122	$ 241
Capitalized assets financed by accounts payable and accrued expenses	$ 342	$ 1,872	$ 194
Leasehold improvements paid by landlord	$ —	$ 803	$ —
Capitalized stock-based compensation	$ 819	$ 624	$ 181
Conversion of preferred stock to common stock	$ —	$ 52,571	$ —
Reclassification of preferred stock warrant liabilities to additional-paid-in-capital	$ —	$ 6,183	$ —
Reclassification of deferred offering costs to additional-paid-in-capital	$ —	$ 3,533	$ —
Deferred offering costs included in accounts payable and accrued expenses	$ —	$ —	$ 865
Common stock and options issued for business acquisitions	$ 76,534	$ 13,342	$ —
Conversion of contingent consideration to common stock	$ 25,608	$ —	$ —

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

THE RUBICON PROJECT, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Nature of Operations

Company Overview

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

The Company is a technology company with a mission to automate the buying and selling of advertising. The Company offers a highly scalable platform that provides an automated advertising solution for buyers and sellers of digital advertising.

The Company delivers value to buyers and sellers of digital advertising through the Company's proprietary advertising automation solution, which provides critical functionality to both buyers and sellers. The advertising automation solution consists of applications for sellers, including providers of websites, mobile applications and other digital media properties, to sell their advertising inventory; applications for buyers, including advertisers, agencies, agency trading desks, demand side platforms, and ad networks, to buy advertising inventory; and a marketplace over which such transactions are executed. This solution incorporates proprietary machine-learning algorithms, sophisticated data processing, high-volume storage, detailed analytics capabilities, and a distributed infrastructure. Together, these features form the basis for the Company's automated advertising solution that brings buyers and sellers together and facilitates intelligent decision-making and automated transaction execution for the advertising inventory managed on the Company's platform. On April 24, 2015, the Company completed the acquisition of Chango Inc., or Chango, a Toronto based intent marketing technology company. The acquisition expanded the Company's buyer capabilities and expertise, and expanded the Company's agency and brand advertiser transactions.

Initial Public Offering

In April 2014, the Company completed an initial public offering, or IPO, whereby 6,432,445 shares of common stock were issued and sold by the Company, and 1,354,199 shares of common stock were sold by selling stockholders. Upon the closing of the IPO, all outstanding shares of preferred stock of the Company converted into common stock. See Note 12.

Risks

The Company is subject to certain business risks, including competition, the Company's ability to adapt its offering in response to market evolution and to maintain market acceptance of its platform solution, the Company's ability to source demand from buyers of advertising inventory and source supply from sellers of advertising inventory, dependence on growth to achieve its business plan, and pricing pressure, among other things.

Note 2—Organization and Summary of Significant Accounting Policies

Basis of Consolidation

The accompanying consolidated financial statements are presented in accordance with accounting principles generally accepted in the United States of America, or GAAP, and include the operations of the Company and its wholly owned subsidiaries. All significant inter-company transactions and balances have been eliminated in consolidation.

Segments

Management has determined that the Company operates as one segment. The Company's chief operating decision maker reviews financial information on an aggregated and consolidated basis, together with certain operating and performance measures principally to make decisions about how to allocate resources and to measure the Company's performance.

Stock Split

On March 18, 2014, the Company effected a 1-for-2 reverse stock split of its common stock. The convertible preferred stock was not split at March 18, 2014; instead the convertible preferred stock conversion ratio was adjusted to effect the stock split at the time of conversion of the preferred stock to common stock. All share, per share and related information presented in the consolidated financial statements and accompanying notes has been retroactively adjusted, where applicable, to reflect the reverse stock split.

Reclassifications

Certain amounts related to deferred tax liabilities in the consolidated balance sheet for December 31, 2014 have been reclassified to conform with current-period presentation. Certain amounts related to the income tax disclosure for December 31, 2014 and 2013 have been reclassified to conform to current period presentation.

Use of Estimates

The preparation of 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.

On an ongoing basis, management evaluates its estimates, primarily those related to: (i) revenue recognition criteria, including the determination of revenue reporting as net versus gross in the Company's revenue arrangements, (ii) accounts receivable and allowances for doubtful accounts, (iii) the useful lives of intangible assets and property and equipment, (iv) valuation of long-lived assets and their recoverability, including goodwill, (v) the realization of tax assets and estimates of tax liabilities, (vi) the valuation of common and preferred stock and preferred stock warrants prior to the Company's IPO, (vii) assumptions used in valuation models to determine the fair value of stock-based awards, (viii) fair value of financial instruments, (ix) the recognition and disclosure of contingent liabilities, and (x) the assumptions used in valuing acquired assets and assumed liabilities in business combinations. These estimates are based on historical data and experience, as well as various other factors that management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Estimates relating to the valuation of stock and business combinations require the selection of appropriate valuation methodologies and models, and significant judgment in evaluating ranges of assumptions and financial inputs. Actual results may differ materially from those estimates under different assumptions or circumstances.

Revenue Recognition

The Company updated its revenue recognition policy to include transactions for which the Company manages campaigns on behalf of buyers, function as principal, and reports the related revenue on a gross basis.

The Company generates revenue from buyers and sellers in transactions in which they use the Company's solution for the purchase and sale of advertising inventory, and also in transactions in which the Company manages ad campaigns on behalf of buyers. The Company recognizes revenue when four basic criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred or services have been rendered, (iii) the fees are fixed or determinable, and (iv) collectibility is reasonably assured. The Company maintains separate arrangements with each buyer and seller either in the form of a master agreement, which specifies the terms of the relationship and access to the Company's solution, or by insertion orders, which specify price and volume requests and other terms. The Company recognizes revenue upon the completion of a transaction, that is, when an impression has been delivered to the consumer viewing a website or mobile application. The Company assesses whether fees are fixed or determinable based on impressions delivered and the contractual terms of the arrangements. Historically, any refunds and adjustments have not been material. The Company assesses collectibility based on a number of factors, including the creditworthiness of a buyer and seller and payment and transaction history. The Company's revenue arrangements generally do not include multiple deliverables.

Revenue is reported depending on whether the Company functions as principal or agent. The determination of whether the Company acts as the principal or the agent requires the Company to evaluate a number of indicators, none of which is presumptive or determinative. For transactions in which the Company is the principal, revenue is reported on a gross basis for the amount paid by buyers for the purchase of advertising inventory and related services and the Company records the amounts paid to sellers as cost of revenue. For transactions in which the Company is the agent, revenue is reported on a net basis for the amount of fees charged to the buyer (if any), and fees retained from or charged to the seller.

The Company enters into arrangements for which it manages advertising campaigns on behalf of buyers. The Company is the principal in these arrangements as it: (i) is the primary obligor in the advertising inventory purchase transaction; (ii) establishes the purchase prices paid by the buyer; (iii) performs all billing and collection activities including the retention of credit risk; (iv) has latitude in selecting suppliers; (v) negotiates the price it pays to suppliers of inventory; and (vi) makes all inventory purchasing decisions. Accordingly, for these arrangements the Company reports revenue on a gross basis.

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

Expenses

The Company classifies its expenses into four categories:

Cost of Revenue

The Company's cost of revenue consists primarily of amounts the Company pays sellers for transactions for which the Company is the principal and reports revenues on a gross basis, data center costs, bandwidth costs, depreciation and maintenance expense of hardware supporting the Company's revenue-producing platform, amortization of software costs for the development of the Company's revenue-producing platform, amortization expense associated with acquired developed technologies, personnel costs, and facilities-related costs. Amounts the Company pays sellers includes the cost of advertising impressions the Company purchases from sellers through third-party exchanges in transactions for which the Company is the principal. 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 the Company's platform. The Company capitalizes costs associated with software that is developed or obtained for internal use and amortizes the costs associated with the Company's revenue-producing platform in cost of revenue over their estimated useful lives. The Company amortizes acquired developed technologies over their estimated useful lives. Many of these expenses are generally fixed and do not increase or decrease in direct proportion to increases or decreases in our revenue.

Sales and Marketing

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

Technology and Development

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

General and Administrative

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

Stock-Based Compensation

Compensation expense related to employee stock-based awards is measured and recognized in the consolidated financial statements based on the fair value of the awards granted. The Company has granted awards to employees that vest based solely on continued service, or service conditions, awards that vest based on the achievement of performance targets, or performance conditions, and awards that vest based on the Company's stock price exceeding a peer index, or market conditions. The fair value of each option award containing service and/or performance conditions is estimated on the grant date using the Black-Scholes option-pricing model. The fair value of awards containing market conditions is estimated using a Monte-Carlo lattice model. For service condition awards, stock-based compensation expense is recognized on a straight-line basis, net of forfeitures, over the requisite service periods of the awards, which is generally four years. For performance condition and market condition awards, stock-based compensation expense is recognized using a graded vesting model over the requisite service period of the awards. For market condition awards, expense recognized is not subsequently reversed if the market conditions are not achieved.

Stock-based awards issued to non-employees are accounted for at fair value determined by using the Black-Scholes option-pricing model. The Company believes that the fair value of the stock options is more reliably measured than the fair value of the services received. The fair value of each non-employee stock-based compensation award is re-measured each period until a commitment date is reached, which is generally the vesting date.

Determining the fair value of stock-based awards at the grant date requires judgment. The Company’s use of the Black-Scholes option-pricing model and Monte-Carlo lattice model requires the input of subjective assumptions such as the expected term of the option, the expected volatility of the price of the Company’s common stock, risk-free interest rates, the expected dividend yield of the Company’s common stock, and for periods prior to the Company's IPO, the fair value of the Company's common stock. The assumptions used in the Company’s valuation models represent management’s best estimates. These estimates involve inherent uncertainties and the application of management’s judgment. If factors change and different assumptions are used, the Company’s stock-based compensation expense could be materially different in the future.

These assumptions and estimates are as follows:

Fair Value of Common Stock. For stock options granted subsequent to the Company's IPO, the fair value of common stock is based on the closing price of the Company's common stock as reported on the New York Stock Exchange, or the NYSE, on the date of grant. Prior to the IPO, the board of directors determined the fair value of the common stock at the time of the grant of options and restricted stock awards by considering a number of objective and subjective factors. The fair value was determined in accordance with applicable elements of the practice aid issued by the American Institute of Certified Public Accountants titled Valuation of Privately Held Company Equity Securities Issued as Compensation.

Risk-Free Interest Rate. The Company bases the risk-free interest rate used in the Black-Scholes option-pricing model on the yields of U.S. Treasury securities with maturities appropriate for the term of employee stock option awards.

Expected Term. For employee options that contain service conditions, the Company applies the simplified approach, in which the expected term of an award is presumed to be the mid-point between the vesting date and the expiration date of the award. The expected term of employee stock options that contain performance conditions represents the weighted-average period that the stock options are estimated to remain outstanding.

Volatility. Because the Company does not have significant trading history for the Company’s common stock, the Company determines the price volatility based on the historical volatilities of a publicly traded peer group based on daily price observations over a period equivalent to the expected term of the stock option grants.

Dividend Yield. The dividend yield assumption is based on the Company’s history and current expectations of dividend payouts. The Company has never declared or paid any cash dividends on its common stock and does not anticipate paying any cash dividends in the foreseeable future, so the Company used an expected dividend yield of zero.

In addition to the above assumptions, the Company also estimates a forfeiture rate to calculate the stock-based compensation expense for stock-based awards. The Company’s forfeiture rate is based on an analysis of the Company’s historical forfeitures and estimated future forfeitures. Changes in the estimated forfeiture rate may have a significant impact on the Company’s stock-based compensation expense as the cumulative effect of adjusting the rate is recognized in the period the forfeiture estimate is changed.

The Company will continue to use judgment in evaluating the assumptions related to the Company’s stock-based compensation. Future expense amounts for any particular period could be affected by changes in the Company’s assumptions or market conditions.

Due to the full valuation allowance provided on its net deferred tax assets, the Company has not recorded any tax benefit attributable to stock-based awards for the years ended December 31, 2015, 2014 and 2013.

Income Taxes

Deferred income tax assets and liabilities are determined based upon the net tax effects of the differences between the Company's consolidated financial statements carrying amounts and the tax basis of assets and liabilities and are measured using the enacted tax rate expected to apply to taxable income in the years in which the differences are expected to be reversed.

A valuation allowance is used to reduce some or all of the deferred tax assets if, based upon the weight of available evidence, it is more likely than not that those deferred tax assets will not be realized. The Company has established a full valuation allowance to offset its domestic net deferred tax assets due to the uncertainty of realizing future tax benefits from the net operating loss carryforwards and other deferred tax assets.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized. The Company recognizes interest and penalties accrued related to its uncertain tax positions in its income tax provision (benefit) in the consolidated statements of operations.

The Company recognizes excess tax benefits associated with stock-based compensation to stockholders' equity only when realized based on applying a with-and-without approach.

Net Income (Loss) Per Share Attributable to Common Stockholders

Basic net income (loss) per share of common stock is calculated by dividing the net income (loss) attributable to common stockholders by the weighted-average number of shares of common stock outstanding. Net income (loss) attributable to common stockholders is equal to net income (loss) adjusted for declared or cumulative preferred stock dividends for the period. Prior to the IPO, because the holders of the Company's convertible preferred stock were entitled to participate in dividends, the Company applied the two-class method in calculating earnings per share for periods when the Company generated net income. The two-class method requires net income to be allocated between the common and preferred stockholders based on their respective rights to receive dividends, whether or not declared. However, because the convertible preferred stock was not contractually obligated to share in the Company's income (losses), no such allocation was made for any period presented given the Company's net income (losses).

Diluted income (loss) per share attributable to common stockholders adjusts the basic weighted-average number of shares of common stock outstanding for the effect of potentially dilutive securities during the period. Potentially dilutive securities consist of stock options, restricted stock awards, restricted stock units, potential shares issued under the Company's Employee Stock Purchase Plan, shares held in escrow and potential shares issuable as part of contingent consideration as a result of business combinations, warrants and convertible preferred stock. For purposes of this calculation, potentially dilutive securities are excluded from the calculation of diluted net income (loss) per share attributable to common stockholders if their effect is anti-dilutive.

Prior to the Company's IPO, the Company had two classes of stock, Class A and Class B. Basic and diluted net income (loss) per share attributable to common stockholders were the same for Class A and Class B common stock because they were entitled to the same liquidation and dividend rights. In connection with the IPO, the outstanding shares of Class A common stock and Class B common stock were converted into shares of a single class of common stock on a one-for-one basis. See Note 12.

Comprehensive Income (Loss)

Comprehensive income (loss) encompasses all changes in equity other than those arising from transactions with stockholders, and consists of net income (loss) and foreign currency translation adjustments.

Cash, Cash Equivalents, and Marketable Securities

The Company invests excess cash primarily in money market funds, corporate debt securities, and highly liquid debt instruments of the U.S. government and its agencies. The Company classifies investments held in money market funds as cash equivalents included in cash and cash equivalents as they have weighted-average maturities at the date of purchase of less than 90 days, U.S. government and agency bonds and corporate debt securities with stated maturities of less than one year as short-term investments included in marketable securities, prepaid expenses, and other current assets, and U.S. government and agency bonds and corporate debt securities with stated maturities of over a year as long-term investments included in marketable securities and other assets, non-current on the Company's consolidated balance sheets, as the Company does not expect to redeem or sell these securities within one year from the balance sheet date.

The Company determines the appropriate classification of investments in marketable securities at the time of purchase and reevaluates such designation at each balance sheet date. The Company classifies and accounts for the Company's marketable securities as available-for-sale, and as a result carries the securities at fair value and reports the unrealized gains and losses in the consolidated statements of comprehensive income (loss) and as a component of stockholders' equity. The Company determines any realized gains or losses on the sale of marketable securities on a specific identification method, and the Company records such gains and losses as a component of other income, net on the Company's consolidated statements of operations.

Restricted Cash

The Company classifies certain restricted cash balances within marketable securities, prepaid expenses and other current assets and marketable securities and other assets, non-current on the consolidated balance sheets based upon the term of the remaining restrictions. At December 31, 2015, restricted cash was held as collateral for credit cards. At December 31, 2014, restricted cash was held as security under certain building leases and as collateral for credit cards. At December 31, 2015 and 2014, restricted cash included in prepaid expenses and other current assets was $0.3 million and $0.4 million, respectively. At December 31, 2015 and 2014, restricted cash included in other assets, non-current was zero and $1.0 million, respectively.

Accounts Receivable Allowance for Doubtful Accounts

Accounts receivable are recorded at the invoiced amount, are unsecured, and do not bear interest. The allowance for doubtful accounts is based on the best estimate of the amount of probable credit losses in existing accounts receivable. The allowance for doubtful accounts is determined based on historical collection experience and the review in each period of the status of the then-outstanding accounts receivable, while taking into consideration current customer information, subsequent collection history and other relevant data. The Company reviews the allowance for doubtful accounts on a quarterly basis. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered. The Company's allowance for doubtful accounts was approximately $1.0 million and $0.3 million at December 31, 2015 and 2014, respectively. During the years ended December 31, 2015 and 2014, the Company reserved an additional $0.9 million and $0.2 million, respectively, for doubtful accounts. During the years ended December 31, 2015, 2014, and 2013, the Company wrote-off $0.2 million, $0.6 million, and $0.4 million, respectively, of accounts receivable.

Property and Equipment, Net

Property and equipment are recorded at historical cost, less accumulated depreciation and amortization. Depreciation is computed using the straight-line method based upon the estimated useful lives of the assets. The estimated useful lives of the Company's property and equipment are as follows:

	Years
Computer equipment and network hardware	3
Furniture, fixtures and office equipment	5 to 7
Leasehold improvements	Shorter of useful life or life of lease
Computer equipment under capital leases	Shorter of useful life or life of lease

Repair and maintenance costs are charged to expense as incurred, while renewals and improvements are capitalized. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected in the Company's results of operations.

Internal Use Software Development Costs

The Company capitalizes certain internal use software development costs associated with creating and enhancing internally developed software related to the Company's technology infrastructure. These costs include personnel and related employee benefits expenses for employees who are directly associated with and who devote time to software projects, and external direct costs of materials and services consumed in developing or obtaining the software. Software development costs that do not meet the qualification for capitalization, as further discussed below, are expensed as incurred and recorded in technology and development expenses in the results of operations.

Software development activities generally consist of three stages, (i) the planning stage, (ii) the application and infrastructure development stage, and (iii) the post implementation stage. Costs incurred in the planning and post implementation stages of software development, including costs associated with the post-configuration training and repairs and maintenance of the developed technologies, are expensed as incurred. The Company capitalizes costs associated with software developed for internal use when both the preliminary project stage is completed, management has authorized further funding for the completion of the project, and it is probable that the project will be completed and perform as intended. Costs incurred in the application and infrastructure development stages, including significant enhancements and upgrades, are capitalized. Capitalization ends once a project is substantially complete and the software and technologies are ready for their intended purpose. Internal use software development costs are amortized using a straight-line method over the estimated useful life of three years, commencing when the software is ready for its intended use. The straight-line recognition method approximates the manner in which the expected benefit will be derived.

The Company does not transfer ownership of its software, or lease its software, to third parties.

Intangible Assets

Intangible assets primarily consist of acquired developed technology, customer relationships and non-compete agreements resulting from business combinations, which are recorded at acquisition-date fair value, less accumulated amortization. The Company determines the appropriate useful life of its intangible assets by performing an analysis of expected cash flows of the acquired assets. Intangible assets are amortized over their estimated useful lives using a straight-line method, which approximates the pattern in which the economic benefits are consumed.

The estimated useful lives of the Company’s intangible assets are as follows:

	Years
Developed technology	3 to 5
Customer relationships	2.5 to 5
Non-compete agreements	2 to 3
Other intangible assets	0.5 to 1

Impairment of Long-Lived Assets including Internal Use Capitalized Software Costs

The Company assesses the recoverability of its long-lived assets when events or changes in circumstances indicate their carrying value may not be recoverable. Such events or changes in circumstances may include: a significant adverse change in the extent or manner in which a long-lived asset is being used, significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset, an accumulation of costs significantly in excess of the amount originally expected for the acquisition or development of a long-lived asset, current or future operating or cash flow losses that demonstrate continuing losses associated with the use of a long-lived asset, or a current expectation that, more likely than not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its previously estimated useful life. The Company performs impairment testing at the asset group level that represents the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. The Company assesses recoverability of a long-lived asset by determining whether the carrying value of the asset group can be recovered through projected undiscounted cash flows over their remaining lives. If the carrying value of the asset group exceeds the forecasted undiscounted cash flows, an impairment loss is recognized, measured as the amount by which the carrying amount exceeds estimated fair value. An impairment loss is charged to operations in the period in which management determines such impairment.

Business Combinations

The results of businesses acquired in a business combination are included in the Company’s consolidated financial statements from the date of acquisition. The Company allocates the purchase price, which is the sum of the consideration provided, which may consist of cash, equity or a combination of the two, in a business combination to the identifiable assets and liabilities of the acquired business at their acquisition date fair values. The excess of the purchase price over the amount allocated to the identifiable assets and liabilities, if any, is recorded as goodwill. Determining the fair value of assets acquired and liabilities assumed requires management to use significant judgment and estimates including the selection of valuation methodologies, estimates of future revenues and cash flows, discount rates and selection of comparable companies.

When the Company issues stock-based or cash awards to an acquired company’s stockholders, the Company evaluates whether the awards are contingent consideration or compensation for post-business combination services. The evaluation includes, among other things, whether the vesting of the awards is contingent on the continued employment of the selling stockholder beyond the acquisition date. If continued employment is required for vesting, the awards are treated as compensation for post-acquisition services and recognized as expense over the requisite service period.

The Company estimates the fair value of intangible assets acquired generally using a discounted cash flow approach, which includes an analysis of the future cash flows expected to be generated by the asset and the risk associated with achieving these cash flows. The key assumptions used in the discounted cash flow model include the discount rate that is applied to the forecasted future cash flows to calculate the present value of those cash flows and the estimate of future cash flows attributable to the acquired intangible asset, which include revenue, expenses and taxes. The carrying value of acquired working capital assets and liabilities approximates its fair value, given the short-term nature of these assets and liabilities.

Acquisition-related transaction costs are not included as a component of consideration transferred, but are accounted for as an expense in the period in which the costs are incurred.

Goodwill

Goodwill represents the excess of the aggregate fair value of the consideration transferred in a business combination over the fair value of the assets acquired, net of liabilities assumed. Goodwill is not amortized, but is subject to an annual impairment test. The Company tests for impairment of goodwill annually during the fourth quarter or more frequently if events or changes in circumstances indicate that the goodwill may be impaired. For purposes of goodwill impairment testing, the Company has one reporting unit.

Events or changes in circumstances which could trigger an impairment review include a significant adverse change in legal factors or in the business climate, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, significant changes in the manner of the Company's use of the acquired assets or the strategy for the Company's overall business, significant negative industry or economic trends, or significant underperformance relative to expected historical or projected future results of operations.

The Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, an entity determines it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then additional impairment testing is not required. However, if an entity concludes otherwise, then it is required to perform the first of a two-step impairment test.

The first step involves comparing the estimated fair value of a reporting unit with its respective book value, including goodwill. If the estimated fair value exceeds book value, goodwill is considered not to be impaired and no additional steps are necessary. If, however, the fair value of the reporting unit is less than book value, then a second step is required which requires the carrying amount of the goodwill be compared with its implied fair value. The estimate of implied fair value of goodwill may require valuations of certain internally generated and unrecognized intangible and tangible net assets. If the carrying amount of goodwill exceeds the implied fair value of the goodwill, an impairment loss is recognized in an amount equal to the excess.

Operating and Capital Leases

The Company records rent expense for operating leases, some of which have escalating rent payments on a straight-line basis over the lease term. The Company begins recognition of rent expense on the date of initial possession, which is generally when the Company enters the leased premises and begins to make improvements in preparation for its intended use. Some of the Company's lease arrangements provide for concessions by the landlords, including payments for leasehold improvements and rent-free periods. The Company accounts for the difference between the straight-line rent expense and rent paid as a deferred rent liability.

The Company leases equipment under capital lease arrangements. The assets and liabilities under capital lease are recorded at the lesser of present value of aggregate future minimum lease payments, including estimated bargain purchase options, or the fair value of the asset under lease. Assets under capital lease are amortized using the straight-line method over the estimated useful lives of the assets.

Preferred Stock Warrant Liabilities

The Company issued warrants to purchase preferred stock in connection with professional services and financing arrangements and accounted for these warrants as liabilities at fair value because the underlying shares of convertible preferred stock were contingently redeemable, including in the case of a deemed liquidation, which may have obligated the Company to transfer assets to the warrant holders. The preferred stock warrants were recorded at fair value at the time of issuance and changes in the fair value of the preferred stock warrants each reporting period were recorded as part of other expense, net in the Company's consolidated statements of operations until the earlier of the exercise or expiration of the warrants or the warrants' conversion to warrants to purchase common stock, at which time any remaining liability was reclassified to additional paid-in capital. Following the closing of the Company's IPO, the Company was no longer required to re-measure the warrants to fair value and record any changes in the fair value of these liabilities in the consolidated statement of operations, and accordingly, the Company did not record any related expenses subsequent to the closing of the IPO.

Fair Value of Financial Instruments

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. 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.

Observable inputs are based on market data obtained from independent sources.

The Company's contingent consideration liabilities were measured using unobservable inputs that required a high level of judgment to determine fair value, and thus classified as Level 3. The Company's contingent consideration liabilities were re-measured to fair value through the date they were converted to equity. See Note 9.

At December 31, 2013, the Company's warrants to purchase preferred stock were measured using unobservable inputs that required a high level of judgment to determine fair value, and thus classified as Level 3. The Company's warrants to purchase preferred stock were re-measured to fair value through closing of the IPO. See Note 9.

The carrying amounts of cash equivalents, accounts receivable, accounts payable, accrued expenses, and seller payables approximate fair value due to the short-term nature of these instruments. The carrying value of the line of credit approximates fair value based on borrowing rates currently available to the Company for financing with similar terms.

The carrying amounts of marketable securities are based on quoted market prices, and thus classified as Level 1. See Note 9.

Certain assets, including goodwill and intangible assets are also subject to measurement at fair value on a non-recurring basis if they are deemed to be impaired as a result of an impairment review.

Concentration of Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of cash, cash equivalents, restricted cash and accounts receivable. The Company maintains its cash and cash equivalents with financial institutions which exceed the federally insured limits.

Accounts receivable include amounts due from buyers with principal operations primarily in the United States. The Company performs ongoing credit evaluations of its buyers.

At December 31, 2015, two buyers accounted for 14% and 10%, respectively, of consolidated accounts receivable. At December 31, 2014, two buyers accounted for 15% and 11%, respectively, of consolidated accounts receivable.

For the years ended December 31, 2015, 2014 and 2013, no buyer or seller of advertising inventory comprised 10% or more of consolidated revenue.

At December 31, 2015, one seller of advertising inventory comprised 10% of consolidated accounts payable. At December 31, 2014, one seller of advertising inventory comprised 14% of consolidated accounts payable.

Foreign Currency Transactions and Translation

Transactions in foreign currencies are translated into the functional currency of the applicable entity at the rates of exchange in effect at the date of the transaction. Foreign exchange gains, net were approximately $1.4 million and $1.1 million for the years ended December 31, 2015 and 2014, respectively, and foreign exchange losses, net was approximately $0.7 million for the year ended December 31, 2013 and are included in other expense, net in the accompanying consolidated statements of operations. To the extent that the functional currency is different than the U.S Dollar, the financial statements have then been translated into U.S. Dollars using period-end exchange rates for assets and liabilities and average exchanges rates for the results of operations. Foreign currency translation gains and losses are included as a component of accumulated other comprehensive loss on the consolidated balance sheet.

Recent Accounting Pronouncements

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

In May 2014, the Financial Accounting Standards Board, or FASB, issued new accounting guidance that requires an entity to recognize the amount of revenue it expects to earn from the transfer of promised goods or services to customers. The new accounting guidance will replace most existing GAAP revenue recognition guidance when it becomes effective. The new guidance is effective for annual reporting periods (including interim periods within those periods) beginning after December 15, 2016. In August 2015, the FASB issued an amendment deferring the effective date by one year making it effective for annual reporting periods beginning on or after December 15, 2017, while also providing for early adoption but not before the original effective date. The Company has not yet selected a transition method and is currently assessing the impact this guidance will have on the Company's consolidated financial statements.

In April 2015, the FASB issued new accounting guidance that simplified the presentation of debt issuance costs by requiring debt issuance costs related to a recognized debt liability to be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability. In August 2015, the FASB issued an amendment to this guidance stating an entity may defer and present debt issuing costs associated with line of credit arrangements as an asset and subsequently amortize the deferred debt issuance costs ratably over the term of the line of credit arrangement, regardless of whether there are any outstanding borrowings on the line of credit arrangement. The new guidance is effective for fiscal years beginning after December 15, 2015. Early adoption is permitted for financial statements that have not been previously issued. The adoption of this guidance is not expected to have a material impact on the Company's consolidated financial statements.

In April 2015, the FASB issued new accounting guidance to customers about whether a cloud computing arrangement includes a software license. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. The new guidance is effective for fiscal years beginning after December 15, 2015. Early adoption is permitted for financial statements that have not been previously issued. The adoption of this guidance is not expected to have a material impact on the Company's consolidated financial statements.

In September 2015, the FASB issued new accounting guidance, which requires an acquirer in a business combination to recognize adjustments to the provisional amounts identified during the measurement period in the reporting period in which the adjustment amounts are determined. The acquirer is also required to either present separately on the face of the income statement or disclose in the notes to the financial statements the portion of the amounts recorded in the current-period earnings by line item that would have been recorded in previous periods if the adjustment to the provisional amounts had been recognized as of the acquisition date. The new guidance is effective for annual periods beginning after December 31, 2015, with early application permitted, and shall apply to adjustments to provisional amounts that occur after the effective date. The Company is currently assessing the impact this guidance will have on the Company's consolidated financial statements.

In November 2015, the FASB issued new accounting guidance, which simplifies the presentation of deferred income taxes by requiring deferred tax assets and liabilities be classified as non-current on the balance sheet. The new guidance is effective for annual and interim periods for fiscal years beginning after December 15, 2016. Early adoption is permitted for financial statements that have not been previously issued and can be applied on either a prospective or retrospective basis. The Company has elected to early adopt and prospectively apply the provisions of this new guidance beginning in the fourth quarter of 2015. As the Company adopted the new guidance on a prospective basis, no adjustments were made to prior period balance sheets.

In January 2016, the FASB issued new accounting guidance, which changes certain recognition, measurement, presentation, and disclosure requirements for financial instruments. The new guidance requires all equity investments, except those accounted for under the equity method of accounting or resulting in consolidation, to be measured at fair value with changes in fair value recognized in net income. The guidance also simplifies the impairment assessment for equity investments without readily determinable fair values, amends the presentation requirements for changes in the fair value of financial liabilities, requires presentation of financial instruments by measurement category and form of financial asset, and eliminates the requirement to disclose the methods and significant assumptions used in estimating the fair value of financial instruments. The new guidance is effective for interim and annual periods beginning after December 15, 2017, and early adoption is not permitted except for the amended presentation requirements for changes in the fair value of financial liabilities. The Company is currently assessing the impact this guidance will have on the Company's consolidated financial statements.

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

Note 3—Net Income (Loss) Per Share Attributable to Common Stockholders

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

	Year Ended		
	December 31, 2015	**December 31, 2014**	**December 31, 2013**
	(In thousands, except per share data)		
Basic EPS:			
Net income (loss) attributable to common stockholders	$ 422	$ (19,789)	$ (13,493)
Weighted-average common shares outstanding	42,067	29,921	11,540
Weighted-average unvested restricted shares	(1,677)	(1,704)	(52)
Weighted-average escrow shares	(727)	—	—
Weighted-average common shares outstanding used to compute net income (loss) per share attributable to common stockholders	39,663	28,217	11,488
Basic net income (loss) per share attributable to common stockholders	$ 0.01	$ (0.70)	$ (1.17)
Diluted EPS:			
Net income (loss) attributable to common stockholders	$ 422	$ (19,789)	$ (13,493)
Weighted-average common shares used in basic EPS	39,663	28,217	11,488
Dilutive effect of weighted-average common stock options	2,510	—	—
Dilutive effect of weighted-average restricted stock awards	532	—	—
Dilutive effect of weighted-average restricted stock units	426	—	—
Dilutive effect of weighted-average ESPP	25	—	—
Dilutive effect of weighted-average escrow shares	591	—	—
Dilutive effect of weighted-average contingent shares	748	—	—
Weighted-average shares used to compute diluted net income (loss) per share attributable to common stockholders	44,495	28,217	11,488
Diluted net income (loss) per share attributable to common stockholders	$ 0.01	$ (0.70)	$ (1.17)

The following 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:

	December 31, 2015	December 31, 2014	December 31, 2013
		(in thousands)	
Options to purchase common stock	—	8,113	8,360
Unvested restricted stock awards	—	1,750	—
Unvested restricted stock units	—	845	—
Shares held in escrow	—	125	—
Contingent shares	704	—	—
Conversion of convertible preferred stock	—	—	14,410
Conversion of preferred stock warrants	—	—	436
Total shares excluded from net income (loss) per share attributable to common stockholders	704	10,833	23,206

Prior to December 31, 2015, shares contingently issuable if certain milestones were achieved on December 31, 2015 related to business combinations that occurred during the year ended December 31, 2014 were excluded from the calculation of diluted net income (loss) per share attributable to common stockholders for the year ended December 31, 2014.

In connection with the acquisition of Chango, which occurred during the year ended December 31, 2015, the Company agreed to pay up to $18.2 million of contingent consideration in addition to 126,098 shares held in escrow, if certain milestones were achieved by December 31, 2015. The Company had the option to pay the contingent consideration in cash or common stock, or a combination thereof. As of December 31, 2015, the entire contingent consideration issuable in connection with the Chango acquisition was deemed earned (See Note 7). The Company elected to pay the contingent consideration in shares, with the number of shares issued in connection with the contingent consideration based on the greater of the volume-weighted-average closing prices of the Company's common stock for the ten consecutive trading days ending on (and including) the trading day that is one day prior to December 31, 2015 and $18.77. On December 31, 2015, the Company issued 971,481 shares in connection with the contingent consideration and released 126,098 shares from escrow. These shares were included in the calculation of basic net income (loss) per share attributable to common stockholders effective December 31, 2015, the date of issuance, and were included in the calculation of diluted net income (loss) per share attributable to common stockholders for periods between the date of acquisition and immediately prior to December 31, 2015.

In connection with the acquisition of iSocket, Inc., or iSocket, which occurred during the year ended December 31, 2014, the Company was required to issue up to $9.6 million of contingent consideration payable in shares of common stock if certain performance milestones were achieved by December 31, 2015. The number of shares issued was based on the average closing price of the Company's common stock for the ten consecutive trading days ending on (and including) the last trading day of 2015. On December 31, 2015, the Company issued 585,170 shares in connection with the contingent consideration. These shares were included in the calculation of basic net income (loss) per share attributable to common stockholders effective December 31, 2015, the date of issuance, and were excluded in the calculation of diluted net income (loss) per share attributable to common stockholders for periods between the date of acquisition and immediately prior to December 31, 2015 because they were anti-dilutive.

For the years ended December 31, 2014 and 2013, the Company increased net loss by $1.1 million and $4.2 million, respectively, for cumulative preferred stock dividends in determining its net loss attributable to common stockholders. Upon the completion of the Company’s IPO in April 2014, all of the preferred stock converted to common stock and accordingly, after the IPO the Company was no longer required to increase its net loss for preferred stock dividends in determining its net loss attributable to common stockholders.

Note 4—Investments

Investments in marketable securities presented within prepaid expenses and other current assets and other assets, non-current on the consolidated balance sheet as of December 31, 2015 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	$ 10,485	$ —	$ (22)	$ 10,463
Corporate debt securities	12,786	—	—	12,786
Total	$ 23,271	$ —	$ (22)	$ 23,249
Available-for-sale - long-term:				
U.S. Treasury, government and agency debt securities	$ 13,529	$ —	$ (46)	$ 13,483

As of December 31, 2015, the Company's available-for-sale securities had a weighted remaining contractual maturity of 0.8 years. For the year ended December 31, 2015, there were no gross realized gains and gross realized losses and there were no unrealized holding gains (losses) reclassified out of accumulated other comprehensive loss into the consolidated statements of operations for the maturities of available-for-sale investments.

The Company had no investments in marketable securities as of December 31, 2014.

The amortized cost and fair value of the Company's marketable securities at December 31, 2015, by contractual years-to-maturity are as follows:

	Amortized Cost	Fair Value
	(in thousands)	
Due in less than 1 year	$ 23,271	$ 23,249
Due within 1-2 years	13,529	13,483
Total	$ 36,800	$ 36,732

Note 5—Property and Equipment

Major classes of property and equipment were as follows:

	December 31, 2015	December 31, 2014
	(in thousands)	
Purchased software	$ 1,706	$ 1,651
Computer equipment and network hardware	40,765	24,673
Furniture, fixtures and office equipment	1,959	1,491
Leasehold improvements	3,237	2,994
Gross property and equipment	47,667	30,809
Accumulated depreciation	(22,264)	(15,613)
Net property and equipment	$ 25,403	$ 15,196

Depreciation expense on property and equipment totaled $8.6 million, $6.5 million, and $4.9 million for the years ended December 31, 2015, 2014 and 2013, respectively.

At December 31, 2015, the Company had no property and equipment under capital leases. At December 31, 2014, property and equipment includes property and equipment under capital leases with a cost basis of $0.6 million. Accumulated depreciation on property and equipment under capital leases at December 31, 2014 was $0.5 million.

Depreciation expense on property and equipment under capital leases was zero, $0.3 million and $0.5 million for the years ended December 31, 2015, 2014 and 2013, respectively.

There were no impairment charges to property and equipment for the years ended December 31, 2015, 2014, and 2013.

Note 6—Internal Use Software Development Costs

Internal use software development costs were as follows:

	December 31, 2015		December 31, 2014	
	(in thousands)			
Internal use software development costs, gross	$	27,265	$	20,926
Accumulated amortization		(13,336)		(9,425)
Internal use software development costs, net	$	13,929	$	11,501

During the years ended December 31, 2015, 2014 and 2013, the Company capitalized $9.2 million, $9.4 million, and $4.1 million of internal use software development costs. Amortization expense was $6.7 million, $5.1 million, and $2.7 million for the years ended December 31, 2015, 2014, and 2013. In the years ended December 31, 2015, 2014, and 2013, amortization expense included the write-off of software development costs, net, of $1.5 million, $0.7 million, and $0.2 million respectively. Based on the Company's internal use software development costs at December 31, 2015, estimated amortization expense of $6.5 million, $4.9 million, $2.4 million, and $0.2 million is expected to be recognized in 2016, 2017, 2018, and 2019, respectively.

There were no impairment charges to internal use software development costs for the years ended December 31, 2015, 2014 and 2013.

Note 7—Business Combinations

2015 Acquisition

Chango Inc.

On April 24, 2015, or the Acquisition Date, the Company completed the acquisition of all the issued and outstanding shares of Chango, a Toronto, Canada based intent marketing technology company. The acquisition expanded the Company's premium advertising marketplace with intent marketing technology.

The purchase consideration for the acquisition included 4,191,878 shares of the Company's common stock, with a fair value of approximately $72.5 million, based on the Company's stock price as reported on the NYSE on the Acquisition Date. 639,318 of the 4,191,878 shares of the Company's common stock were placed in escrow to secure post-closing indemnification obligations of the sellers and any shares remaining in escrow after satisfaction of any resolved indemnity claims, less any shares withheld to satisfy pending or resolved claims, will be released from escrow on July 24, 2016. In addition, the Company issued 106,553 shares of the Company's common stock on the date of the acquisition, which were placed in escrow, related to employee future service requirements which were excluded from the purchase consideration and were expensed in the Company's post acquisition consolidated statement of operations. The Company also used approximately $9.1 million of cash to repay Chango's outstanding debt, including accrued interest, and to pay Chango's outstanding transaction expenses.

The purchase consideration also included contingent consideration of up to approximately $18.2 million worth of cash or shares of the Company's common stock and 126,098 shares held in escrow based upon Chango's performance against certain agreed-upon operating objectives for the year ending December 31, 2015. The Company had the option to pay the contingent consideration in cash or common stock, or a combination thereof. The number of shares issued in connection with the contingent consideration, excluding the escrow shares, was based on a price per share of $18.77. On the Acquisition Date, the fair value was estimated using a Monte-Carlo model as the fair value of the contingent consideration was dependent on both the performance milestones being achieved and the post-acquisition prices of the Company's common stock. The total contingent consideration was recorded at an estimated fair value of $16.2 million. The fair value of the contingent consideration assumed the probability of the performance milestones being achieved and the probability that the Company would settle the contingent consideration in common stock. The contingent consideration was recorded as a non-current liability in the consolidated balance sheet as the contingent consideration was payable in a variable number of shares at the Acquisition Date. Changes in the fair value of the contingent consideration liability were recorded in the Company's consolidated statement of operations. Subsequent to the Acquisition Date, the operations of Chango were fully integrated into the operations of the Company. Accordingly, pursuant to the acquisition agreement, because Chango would no longer be operated separate from the Company's other operations in accordance with the agreed-upon business plan, the entire contingent consideration was deemed earned. As a result, the changes in the fair value of the contingent consideration liability post-acquisition were primarily dependent on prices of the Company's common stock for periods subsequent to the Acquisition Date. On December 31, 2015, the Company converted the contingent consideration to equity and issued 971,481 shares in addition to releasing 126,098 shares from escrow.

As part of the acquisition, existing stock options to purchase common stock of Chango were exchanged for 428,798 options to purchase the Company's common stock. The fair value of stock options exchanged on the Acquisition Date attributable to pre-acquisition services of approximately $4.3 million was recorded as purchase consideration. The fair value of stock options exchanged on the Acquisition Date attributable to post-acquisition services of $2.4 million will be recorded as additional stock-based compensation expense in the Company's consolidated statements of operations over their remaining requisite service (vesting) periods. During the fourth quarter of 2015, the Company recorded a decrease to goodwill related to the Chango acquisition for an insignificant adjustment to purchase price associated with the fair value of stock-based awards exchanged in the amount of $0.3 million and a reduction to the fair value of stock options exchanged on the Acquisition Date attributable to post-acquisition services of $0.7 million.

As part of the acquisition, the Company recorded deferred tax liabilities related to acquired intangibles of $13.9 million net of deferred tax assets of $2.0 million, primarily related to net operating loss carry forwards. During the fourth quarter of 2015, the Company recorded a decrease to goodwill related to the Chango acquisition for a measurement period adjustment for a reduction in deferred tax liabilities in the amount of $0.5 million.

The total purchase consideration and the allocation of the total purchase consideration to assets acquired and liabilities assumed is summarized below (in thousands):

Shares of the Company's common stock	$	72,477
Estimated fair value of contingent consideration		16,171
Fair value of stock-based awards exchanged		4,058
Cash paid		9,097
Working capital adjustment		(184)
Total purchase consideration		101,619
Cash		450
Accounts receivable		13,333
Prepaid and other assets		1,025
Fixed assets		265
Intangible assets, including in process research and development of $580		52,420
Goodwill		51,732
Total assets acquired	$	119,225
Accounts payable and accrued expenses		5,825
Other liabilities		443
Deferred tax liability, net		11,338
Total liabilities assumed		17,606
Total net assets acquired	$	101,619

The fair value of the consideration transferred to acquire Chango was allocated to the identifiable assets acquired and liabilities assumed based upon their estimated fair values as of the date of the acquisition as set forth above. This allocation was final as of December 31, 2015.

The following table summarizes the components of the acquired intangible assets and estimated useful lives (dollars in thousands):

			Estimated Useful Life
Developed technology	$	22,000	3 - 5 years
In-process research and development		580	3 years*
Customer relationships		22,000	5 years
Backlog		3,090	<1 year
Non-compete agreements		4,500	2 years
Trademarks		250	<1 year
Total intangible assets acquired	$	52,420	

* In-process research and development was completed and placed in service as of December 31, 2015 and amortization commenced.

The intangible assets are generally amortized on a straight-line basis, which approximates the pattern in which the economic benefits are consumed, over their estimated useful lives. Amortization of developed technology is included in cost of revenues, the amortization of customer relationships and backlog is included in sales and marketing, the amortization of non-compete agreements is included in technology and development and general and administrative, and the amortization of trademarks is included in general and administrative in the consolidated statements of operations.

The Company believes the amount of goodwill resulting from the acquisition is primarily attributable to expected synergies from assembled workforce, an increase in development capabilities, increased offerings to customers, and enhanced opportunities for growth and innovation. The goodwill resulting from the Chango acquisition is not tax deductible.

During the year ended December 31, 2015, the Company recognized approximately $1.3 million in professional fees directly related to the acquisition of Chango, primarily composed of legal, accounting, and valuation costs, which are recorded within general and administrative expenses in the Company’s consolidated statements of operations. In addition, as part of the acquisition of Chango, the Company acquired Chango's NOLs of approximately $6.9 million.

Unaudited Pro Forma Information - 2015 Acquisition

The following table provides unaudited pro forma information as if Chango had been acquired as of January 1, 2014. The unaudited pro forma information reflects adjustments for additional amortization resulting from the fair value adjustments to assets acquired and liabilities assumed. The pro forma results do not include any anticipated cost synergies or other effects of the integration of Chango or recognition of compensation expense relating to the contingent consideration. Accordingly, pro forma amounts are not necessarily indicative of the results that actually would have occurred had the acquisition been completed on the dates indicated, nor is it indicative of the future operating results of the combined company.

	Year Ended	
	December 31, 2015	December 31, 2014
	(in thousands, except per share data)	
Pro forma revenues	$ 265,134	$ 167,860
Pro forma net income (loss)	$ 673	$ (39,225)
Pro forma net income (loss) per share, basic	$ 0.02	$ (1.27)
Pro forma net income(loss) per share, diluted	$ 0.01	$ (1.27)

Subsequent to the Acquisition Date, the operations of Chango were fully integrated into the operations of the Company and as a result, the determination of Chango's post-acquisition revenues and operating results on a standalone basis are impracticable given the integration of the Chango operations with the Company's operations.

2014 Acquisitions

iSocket, Inc.

On November 17, 2014, the Company completed the acquisition of all the issued and outstanding shares of iSocket, Inc., or iSocket, a San Francisco, California based technology company focused on automating the direct buying and selling of premium, guaranteed ad inventory. iSocket provided automated applications for advertisers to plan, negotiate and purchase guaranteed inventory and for publishers to manage and streamline the direct sales process.

Purchase consideration for the acquisition was 840,885 shares of the Company's common stock, with a fair value of approximately $11.2 million, based on the Company's common stock price as reported on the NYSE on the acquisition date. 125,116 of the 840,885 shares were placed in escrow to secure post-closing indemnification obligations of the sellers and any shares remaining in escrow after satisfaction of any resolved indemnity claims, less any shares withheld to satisfy pending claims, will be released from escrow on February 17, 2016.

The purchase consideration also included contingent consideration of up to $12.0 million worth of common stock if certain performance milestones were achieved by December 31, 2015. The number of shares to be issued was based on the average closing price of the Company's common stock for the ten consecutive trading days ending on (and including) the last trading day of 2015. The Company determined it was probable that the performance milestones would be achieved and accordingly, the full amount of the contingent consideration of $12.0 million was discounted to fair value at a discount rate of 4.8%, based on an estimate of the Company's incremental borrowing rate. In accordance with ASC 480, *Distinguishing Liabilities from Equity*, the contingent consideration was recorded as a non-current liability in the consolidated balance sheet as the contingent consideration was payable in a variable number of shares.

During the fourth quarter of 2015, the Company identified an error in its consolidated financial statements for the year ended December 31, 2014 relating to the calculation of the contingent consideration amount associated with the acquisition of iSocket, which was completed on November 17, 2014. The contingent consideration amount with a fair value of $11.4 million on the date of acquisition was to be reduced by amounts associated with shares of the Company's common stock subject to in-the-money options that were assumed as part of the acquisition. As a result, the contingent consideration amount should have been a fair value of approximately $9.1 million on the date of acquisition. The fair value of the assumed options was properly included in the initial accounting.

As a result, the purchase price, the fair value of the contingent consideration, and goodwill were overstated as of the acquisition date and as of December 31, 2014 by approximately $2.3 million. The impact of change in fair value to the previously issued income statement for the year ended December 31, 2014 was insignificant.

The Company has concluded that the correction of the error was not material to the consolidated financial statements for the year ended December 31, 2015 or to any previously issued annual or interim financial statements. On December 31, 2015, the Company converted the contingent consideration to equity and issued 585,170 shares.

As part of the acquisition, existing stock options to purchase common stock of iSocket, were exchanged for options to purchase shares of the Company's common stock. The fair value of stock options exchanged, measured on the acquisition date, of $3.1 million was attributed to pre-acquisition and post-acquisition services. The fair value attributed to pre-acquisition services of $2.1 million was recorded as purchase consideration and the fair value attributed to post-acquisition services of $1.0 million is expected to be recognized as compensation expense on the Company's consolidated statements of operations over their remaining vesting periods.

The total purchase consideration and the allocation of the total purchase consideration to assets acquired and liabilities assumed is summarized below (in thousands):

Fair value of common stock	$	11,200
Fair value of contingent consideration		9,065
Fair value attributed to pre-acquisition stock options exchanged		2,142
Total purchase consideration, including contingent consideration		22,407
Other assets, including cash acquired of $0.6 million		1,521
Intangible assets		12,193
Goodwill		9,461
Other liabilities		(768)
Net assets acquired	$	22,407

The following table summarizes the components of the acquired intangible assets and estimated useful lives (dollars in thousands):

			Estimated Useful Life
Developed technology	$	9,310	5.0 years
Customer Relationships		2,880	2.5 years
Trademarks		3	0.5 years
Total intangible assets acquired	$	12,193	

Goodwill is primarily attributable to expected synergies from assembled workforce, an increase in development capabilities, increased offerings to customers, and enhanced opportunities for growth and innovation. Goodwill generated in the iSocket acquisition is not deductible for tax purposes.

The Company recognized approximately $0.4 million of acquisition related costs during the year ended December 31, 2014, that are recorded within general and administrative expenses in the Company’s consolidated statements of operations. The operations of iSocket were fully integrated into the operations of the Company upon acquisition. The results of operations of iSocket were insignificant to the Company’s consolidated statements of operations from the acquisition date of November 17, 2014 through the period ended December 31, 2014.

As part of the acquisition, the Company recorded deferred tax assets of $6.4 million, primarily related to net operating loss carry forwards, which were offset by deferred tax liabilities of $4.8 million related to acquired intangible assets, and a valuation allowance of $1.6 million. See Note 14 for additional information related to net operating loss carryforwards associated with this acquisition.

Shiny Inc.

On October 20, 2014, the Company completed the acquisition of all the issued and outstanding shares of Shiny Inc., or Shiny, a Toronto, Canada based technology company focused on providing an end-to-end automated direct advertising platform for digital buyers of all sizes. Shiny also offered an open application programming interface to support real-time buying of guaranteed advertising as well as a self-serve automated guaranteed platform for digital buyers and sellers.

The purchase consideration of Shiny was paid in cash by the Company at the acquisition date; $0.7 million of which was held in escrow subject to the continued employment of certain employees post-acquisition. The $0.7 million has been excluded from the purchase consideration; rather, the Company recorded it as compensation expense post acquisition.

The Company's allocation of the total purchase considerations is summarized below (in thousands):

Cash purchase consideration (excluding $0.7 million tied to continued employment)	$	4,651
Other assets, including cash acquired of $0.1 million		737
Intangible assets		2,300
Goodwill		3,021
Other liabilities		(1,407)
Net assets acquired	$	4,651

The following table summarizes the components of the acquired intangible assets and estimated useful lives (dollars in thousands):

			Estimated Useful Life
Developed technology	$	1,360	3.0 years
Customer relationships		450	2.5 years
Non-compete agreements		490	3.0 years
Total intangible assets acquired	$	2,300	

Goodwill is primarily attributable to expected synergies from assembled workforce, an increase in development capabilities, increased offerings to customers, and enhanced opportunities for growth and innovation. A portion, $0.2 million, of the goodwill generated in the Shiny acquisition is not tax deductible while the remaining $2.8 million is deductible.

Unaudited Pro Forma Information - 2014 Acquisitions

The following table provides unaudited pro forma information as if Shiny and iSocket had been acquired as of January 1, 2013. The unaudited pro forma information reflects adjustments for additional amortization resulting from the fair value adjustments to assets acquired and liabilities assumed. The pro forma results do not include any anticipated cost synergies or other effects of the integration of Shiny and iSocket or recognition of compensation expense relating to the contingent consideration. Accordingly, pro forma amounts are not necessarily indicative of the results that actually would have occurred had the acquisition been completed on the dates indicated, nor is it indicative of the future operating results of the combined company.

	Year Ended			
	December 31, 2014		December 31, 2013	
	(in thousands, except per share data)			
Pro forma revenues	$	125,834	$	84,249
Pro forma net loss	$	(27,659)	$	(23,419)
Pro forma net loss per share, basic and diluted	$	(0.95)	$	(1.92)

Note 8—Goodwill and Intangible Assets

Details of the Company's goodwill were as follows:

	December 31, 2015		December 31, 2014	
	(in thousands)			
Beginning balance	$	16,290	$	1,491
Additions from the acquisition of iSocket		—		11,778
Additions from the acquisition of Shiny		—		3,021
Additions from the acquisition of Chango		52,513		—
Error correction related to iSocket (See Note 7)		(2,317)		—
Measurement period adjustment related to Chango (See Note 7)		(520)		—
Other adjustment related to Chango (See Note 7)		(261)		—
Ending balance	$	65,705	$	16,290

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

	December 31, 2015	December 31, 2014
	(in thousands)	
Amortizable intangible assets:		
Developed technology	$ 35,756	$ 13,176
Customer relationships	25,330	3,330
Non-compete agreements	4,990	490
Trademarks	—	3
Total identifiable intangible assets, gross	66,076	16,999
Total accumulated amortization—intangible assets	(15,293)	(2,909)
Total identifiable intangible assets, net	$ 50,783	$ 14,090

Amortization expense of intangible assets for the years ended December 31, 2015, 2014, and 2013 were $15.7 million, $0.9 million, and $0.9 million, respectively.

As of December 31, 2015, the estimated remaining amortization expense associated with the Company's intangible assets for each of the next five fiscal years was as follows:

Fiscal Year	Amount
	(in thousands)
2016	$ 16,227
2017	13,725
2018	9,941
2019	8,680
2020 and thereafter	2,210
Total	$ 50,783

No impairment of goodwill or intangible assets was identified for the years ended December 31, 2015, 2014, and 2013.

Note 9—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 December 31, 2015:

	December 31, 2015	Fair Value Measurements at Reporting Date Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in thousands)			
Money market funds	$ 19,257	$ 19,257	$ —	$ —
Corporate debt securities	$ 12,786	$ 12,786	$ —	$ —
U.S. Treasury, government and agency debt securities	$ 23,946	$ 23,946	$ —	$ —

The table below sets forth a summary of financial instruments that are measured at fair value on a recurring basis at December 31, 2014:

	December 31, 2014	Fair Value Measurements at Reporting Date Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in thousands)			
Money market funds	$ 55,963	$ 55,963	$ —	$ —
Contingent consideration liability	$ 11,448	$ —	$ —	$ 11,448

At December 31, 2015 and 2014, cash equivalents of $19.3 million and $56.0 million consisted of money market funds with original maturities of three months or less. The fair values of the Company's money market funds, U.S. treasury, government and agency debt securities, and corporate debt securities are based on quoted market prices.

The Company classified the contingent consideration liabilities, which were incurred in connection with the acquisitions of iSocket and Chango, within Level 3 as factors used to develop the estimated fair value include unobservable inputs that were not supported by market activity. The Company estimated the fair value of the contingent consideration liability related to the iSocket acquisition by discounting the present value of probability-weighted future payout related to the contingent consideration criteria using an estimate of the Company's incremental borrowing rate. At December 31, 2014, the Company considered it highly likely that the iSocket contingent consideration criteria would be met. On Chango's acquisition date, the Company estimated the fair value of the contingent consideration liability related to the Chango acquisition by using a Monte-Carlo model as the fair value of the contingent consideration was dependent on both the performance milestones being achieved and the post-acquisition prices of the Company's common stock. Subsequent to Chango's acquisition date, the operations of Chango were fully integrated into the operations of the Company. Accordingly, pursuant to the acquisition agreement, because Chango would no longer be operated separate from the Company's other operations in accordance with the agreed-upon business plan, the entire contingent consideration was deemed earned. As a result, the changes in the fair value of the contingent consideration liability were primarily dependent on prices of the Company's common stock for periods subsequent to Chango's acquisition date.

For each of the years ended December 31, 2015 and 2014, the Company recognized an expense of $0.3 million and $0.1 million, respectively, relating to the change in fair value of the contingent consideration liabilities, which was recorded in general and administrative expenses. The contingent consideration liability related to the iSocket acquisition was payable in shares and the number of shares to be issued was based on the average closing price of the Company's common stock for the ten consecutive trading days ending on (and including) the last trading day of 2015. The contingent consideration related to the Chango acquisition was payable in cash or shares, or a combination thereof, and the number of shares issued, excluding the 126,098 shares related to the contingent consideration that were already issued and held in escrow, was based on a price per share of $18.77. On December 31, 2015, the Company converted the contingent consideration to equity and issued 585,170 shares related to iSocket and 971,481 shares related to Chango.

The Company’s pre-IPO preferred stock warrants were recorded at fair value and were determined to be Level 3 fair value items. The changes in the fair value of preferred stock warrants are summarized below:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
		(in thousands)	
Beginning balance	$ —	$ 5,451	$ 1,330
Change in value of preferred stock warrants recorded in other expense, net	—	732	4,121
Net exercise of preferred stock warrant and conversion of preferred stock warrant to common stock warrant	—	(6,183)	—
Ending balance	$ —	$ —	$ 5,451

The Company determined the fair value of the convertible preferred stock warrants utilizing the Black-Scholes model with the following weighted-average assumptions:

	Series B December 31, 2013	Series C December 31, 2013
Risk-free interest rate	0.18%	0.13%
Expected term (in years)	0.69	0.50
Estimated dividend yield	2.00%	2.00%
Weighted-average estimated volatility	64%	63%
Fair value (in thousands)	$ 173	$ 5,278

The Company’s contingent consideration liabilities were recorded at fair value and were determined to be Level 3 fair value items. The changes in the fair value of the contingent consideration liabilities are summarized below:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
		(in thousands)	
Beginning balance	$ 11,448	$ —	$ —
Increase to contingent consideration liability related to the iSocket acquisition (See Note 7)	—	11,382	—
Increase to contingent consideration liability related to the Chango acquisition (See Note 7)	16,171	—	—
Change in fair value of contingent consideration liabilities recorded in general and administrative expense	306	66	—
Decrease in iSocket contingent consideration liability related to goodwill adjustment (See Note 7)	(2,317)	—	—
Issuance of shares associated with iSocket and Chango contingent consideration	(25,608)	—	—
Ending balance	$ —	$ 11,448	$ —

In connection with the Company’s IPO in April 2014, the outstanding warrant for 845,867 shares of the Company’s convertible preferred stock was net exercised, resulting in the issuance of 286,055 shares of common stock based on the IPO price of $15.00 per share and taking into account the 1-for-2 reverse stock split. In connection with the IPO, the remaining warrant for 25,174 shares of convertible preferred stock was automatically converted into a warrant exercisable for 12,587 shares of common stock. See Note 12 regarding the exercise of a preferred stock warrant and the conversion of each outstanding share of preferred stock into one half of a share of common stock in connection with the Company's IPO. Following the closing of the Company’s IPO on April 7, 2014, the Company was no longer required to re-measure the converted common stock warrants to fair value and record any changes in the fair value of these liabilities in the Company's consolidated statement of operations. During the years ended December 31, 2015, 2014, and 2013, the Company recognized expense of zero, $0.7 million, and $4.1 million, respectively, from the re-measurement of the warrants to fair value. The warrant exercisable for 12,587 shares of common stock was net exercised in June 2014.

For the years ended December 31, 2015, 2014, and 2013, no impairments were recorded on those assets required to be measured at fair value on a non-recurring basis.

Note 10—Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses included the following:

	December 31, 2015	December 31, 2014
	(in thousands)	
Accounts payable—seller	$ 228,850	$ 138,366
Accounts payable—trade	6,962	5,350
Accrued employee-related payables	12,155	7,305
Total	$ 247,967	$ 151,021

At December 31, 2015 and December 31, 2014, accounts payable—seller are recorded net of $0.7 million and $0.7 million, respectively, due from sellers for services provided by the Company to sellers, where the Company has the right of offset.

Note 11—Debt and Capital Lease Arrangements

Debt and capital lease arrangements consisted of the following:

	December 31, 2015	December 31, 2014
	(in thousands)	
Line of credit	$ —	$ —
Capital lease obligations	—	105
Total	$ —	$ 105

The Company has a loan and security agreement with Silicon Valley Bank, or the Loan Agreement, that provides a senior secured revolving credit facility of up to $40.0 million with a maturity date of September 27, 2018. An unused revolver fee in the amount of 0.15% per annum of the average unused portion of the revolver line is charged and is payable monthly in arrears. The Company may elect for advances to bear interest calculated by reference to prime or LIBOR. If the Company elects LIBOR, amounts outstanding under the amended credit facility bear interest, at a rate per annum equal to LIBOR plus 2.0% if the Company maintains a net cash balance exceeding $1. If the Company elects prime, advances bear interest at a rate of prime plus 0% if the Company maintains a net cash balance exceeding $1 or prime plus 1.50% if the Company does not maintain a net cash balance of $1.

The Loan Agreement is collateralized by security interests in substantially all of the Company's assets. The Loan Agreement restricts the Company's ability to 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. The Company is required to maintain a lockbox arrangement where customer payments received in the lockbox will reduce the amounts outstanding on the credit facility only if the Company does not maintain a net cash balance of $1 or in the event of a default, as defined in the arrangement.

The Loan Agreement requires the Company to comply with financial covenants including minimum levels of adjusted tangible net worth and a fixed charge coverage ratio, as well as certain affirmative covenants. In the event the amount available to be drawn is less than 20% of the maximum line amount of the credit facility, or in the event that a default exists, the Company is required to satisfy a minimum fixed charge coverage ratio of no less than 1.10 to 1.00 calculated on a twelve month trailing basis as of the last day of each month on a consolidated basis. The Company was in compliance with the covenants as of December 31, 2015 and 2014.

The Loan Agreement includes customary events of defaults, including a change of control default and an event of default in the event a material adverse change occurs. In case of such an event of default, Silicon Valley Bank would be entitled to, among other things, accelerate payment of amounts due under the credit facility and exercise all rights of a secured creditor.

On April 14, 2014, the Company repaid all of the outstanding debt under the line of credit with Silicon Valley Bank in the amount of $3.8 million. At December 31, 2015, $40.0 million was available for borrowing under the credit facility and no amounts were outstanding under this loan.

Note 12—Capitalization

At December 31, 2013, the authorized capital stock of the Company consisted of 73,380,126 shares of common stock, of which 32,500,000 shares were designated Class A common stock and 4,190,063 shares were designated Class B common stock, and 29,691,524 shares of preferred stock. On March 14, 2014 the authorized capital stock of the Company was increased to 80,608,856 shares of common stock. In connection with the IPO, the outstanding shares of Class A common stock and Class B common stock were converted into shares of a single class of common stock on a one-for-one basis. Class A common stock and Class B common stock are collectively referred to herein as common stock.

Initial Public Offering

On April 7, 2014, the Company closed its IPO whereby 6,432,445 shares of common stock were issued and sold by the Company (including 1,015,649 shares sold pursuant to the underwriters' exercise of their over-allotment option), and 1,354,199 shares of common stock were sold by selling stockholders at an IPO price of $15.00 per share. The Company received proceeds from the offering of approximately $86.2 million after deducting underwriting discounts and commissions and offering expenses. The Company did not receive any proceeds from the sales of shares by the selling stockholders.

In connection with the Company's IPO: (i) all shares of the Company's outstanding convertible Series A, B, C and D preferred stock automatically converted into an aggregate of 14,410,238 shares of Class A common stock on a one for one-half basis; (ii) each outstanding share of Class B common stock automatically converted into one share of Class A common stock; (iii) all shares of Class A common stock (including all shares of Class A common stock issued upon conversion of convertible preferred stock and Class B common stock) converted into a single class of common stock; (iv) a warrant for 845,867 shares of convertible preferred stock was net exercised, resulting in the issuance of 286,055 shares of common stock based on the IPO price of $15.00 per share and taking into account the 1-for-2 reverse stock split; (v) a warrant exercisable for 25,174 shares of convertible preferred stock automatically converted into a warrant exercisable for 12,587 shares of common stock (which was subsequently net exercised); and (vi) the Company's certificate of incorporation was amended in various respects, including to provide for authorized capital stock of 500,000,000 shares of common stock and 10,000,000 shares of preferred stock. The board of directors is authorized to establish, from time to time, the number of shares to be included in each series of preferred stock, and to fix the designation, powers, privileges, preferences, and relative participating, optional or other rights, if any, of the shares of each series of preferred stock, and any of its qualifications, limitations or restrictions.

In addition, upon completion of the IPO, costs associated with the IPO of $3.5 million were reclassified from other assets, non-current to additional paid-in capital.

Convertible Preferred Stock

At December 31, 2013, the Company's outstanding convertible preferred stock consisted of the following:

	December 31, 2013			
	Shares Authorized	Shares Outstanding	Carrying Values	Liquidation Preference
			(Dollars in thousands)	
Series A	6,154,000	6,154,000	$ 4,000	$ 6,118
Series B	13,588,160	13,562,986	21,087	30,754
Series C	4,765,173	3,919,306	9,484	12,779
Series D	5,184,191	5,184,189	18,000	23,121
Total	29,691,524	28,820,481	$ 52,571	$ 72,772

Prior to the conversion of the preferred stock into common stock in April 2014, the rights and preferences of the convertible preferred stock were as follows:

Voting Rights: On any matters presented to the Company's stockholders for their action or consideration, each holder of convertible preferred stock was entitled to one vote for each share of Class A common stock into which such holder's shares of convertible preferred stock were then convertible. Except as provided by law or the Company's amended and restated certificate of incorporation, the holders of the convertible preferred stock and Class A common stock vote together as a single class.

Dividends: The holders of the convertible preferred stock were entitled, when, as, and if declared by the board of directors, and prior and in preference to common stock, to cumulative dividends at the following per annum rates (pro-rated for partial years elapsed): $0.052 per share for Series A, $0.1244480 per share for Series B, $0.1941832 per share for Series C, and $0.2844824 per share for Series D. Cumulative preferred stock dividends at December 31, 2013 were $19.7 million. Unless declared, dividends were not payable except in the event of a liquidation, dissolution or winding up of the Company. No dividends had been declared or paid to date.

Liquidation: In the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company or a sale of the Company, the holders of the convertible preferred stock were entitled to receive out of the assets available for distribution to the Company's stockholders, on a pari passu basis prior to distribution of any assets of the Company to the holders of common stock, an amount equal to the greater of (a) the original issuance price plus accrued but unpaid dividends, or (b) such amount as would have been payable had the convertible preferred stock converted into common stock immediately prior to the liquidation, dissolution or winding up. If amounts available to be distributed were insufficient to pay the liquidation preferences of the preferred stock in full, then the entire assets and funds of the Company legally available for distribution would be distributed to the holders of convertible preferred stock ratably in proportion to the preferential amount each holder would have otherwise been entitled to receive. After payment of the liquidation preferences to the convertible preferred stock, all remaining assets were to be distributed to the common stock.

The liquidation preference provisions of the convertible preferred stock were considered contingent redemption provisions because there were certain elements that were not solely within the control of the Company, such as a change in control of the Company. Accordingly, the Company presented the convertible preferred stock within the mezzanine portion of the accompanying consolidated balance sheets.

Conversion: Each outstanding share of convertible preferred stock was convertible, at the holder's option, into shares of Class A common stock at a conversion rate determined by dividing the original issue price for such share by the then Conversion Price for such share. The original issue price and conversion price of the each series of preferred stock were as follows:

	Original Issue Price per share	Conversion Price per share
Series A	$ 0.65	$ 1.30
Series B	$ 1.55556	$ 3.11112
Series C	$ 2.42729	$ 4.85458
Series D	$ 3.55603	$ 7.11206

The conversion price was subject to adjustment in the event of certain anti-dilutive issuances of shares of common stock. The conversion price per share in the table above reflects the adjustment for the 1-for-2 reverse stock split of the Company's common stock effected on March 18, 2014.

Each share of convertible preferred stock would automatically convert into shares of common stock at its then effective conversion rate immediately upon the earlier of (i) the closing of a firm commitment underwritten initial public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, with proceeds to the Company of not less than $20 million (net of underwriting discounts and commissions) based on a pre-offering enterprise value of at least $250 million, (ii) or upon the consent of the holders on the date specified by a vote of at least 75% of all then-outstanding shares of convertible preferred stock voting together as a single class on an as-converted to Class A common stock basis, provided that the Series C preferred stock shall not be converted as a result of such a vote without the consent of the holders of a majority of the shares of Series C preferred stock then outstanding, and the Series D preferred stock shall not be converted as a result of such a vote without the consent of the holders of a majority of the shares of Series D preferred stock then outstanding.

Redemption: The convertible preferred stock was not redeemable at the option of the holder.

Convertible Preferred Stock Warrants

On March 1, 2009, the Company issued a fully vested, non-forfeitable warrant to purchase 25,174 shares of the Company's Series B preferred stock at an exercise price of $1.55556 per share. The warrant was issued to the Company's bank, Silicon Valley Bank, in connection with securing an equipment term loan. The warrant was fully vested upon issuance and expires on March 1, 2019. The holder of the warrant has the right to include shares issued upon exercise of the warrant in certain registered offerings by the Company of its common stock. The fair value of the warrants at issuance was recorded as a deferred financing cost and was amortized over the term of the loan. In connection with the Company's IPO, this warrant was automatically converted into a warrant exercisable for 12,587 shares of common stock, and was net exercised in June 2014.

On January 12, 2010, the Company issued a warrant to an investment bank to purchase 845,867 shares of the Company's Series C preferred stock at an exercise price of $2.42729 per share. The warrant was issued for banking and financial advisory services provided to the Company. The warrant was fully vested upon issuance and expired on the earliest of January 12, 2015, a firm commitment underwritten initial public offering if the lead underwriter requests termination, or, under certain circumstances, a liquidation, dissolution, winding up or change in control as defined in the Company's amended and restated certificate of incorporation. The holder of the warrant had the right to exercise the warrant for cash or on a net issuance basis. In December 2013, the lead underwriter of the Company's initial public offering requested the termination of the warrant in connection with the offering, and in March 2014, the warrant holder agreed to net exercise the warrant upon the consummation of the offering. In April 2014, the warrant was net exercised, resulting in the issuance of 286,055 shares of common stock based on the IPO price of $15.00 per share and taking into account the 1-for-2 reverse stock split.

Common Shares Reserved For Issuance

The Company is required to reserve and keep available out of its authorized but unissued shares of common stock such number of shares sufficient to effect the contingent consideration and the conversion of all shares granted and available for grant under the Company's stock award plans. The number of shares of the Company's stock reserved for these purposes at December 31, 2015 was 12,464,864.

Note 13—Stock-Based Compensation

In connection with its IPO, the Company implemented its 2014 Equity Incentive Plan, or the 2014 Plan, which governs equity awards made to employees and directors of the Company since the IPO. In connection with the acquisition of iSocket, the Company assumed the iSocket 2009 Equity Incentive Plan, or the iSocket Plan, which governs stock options issued to former iSocket employees and assumed by the Company. In November 2014, the Company approved the 2014 Inducement Grant Equity Incentive Plan, or the Inducement Plan, which governs certain equity awards made to certain employees in connection with commencement of employment. In connection with the acquisition of Chango, the Company assumed Chango's 2009 Stock Option Plan, or the Chango plan, which governs stock options issued to former Chango employees and assumed by the Company. All compensatory equity awards outstanding at December 31, 2015 were issued pursuant to the 2014 Plan, the iSocket Plan, the Chango Plan, the Inducement Plan, or the 2007 Stock Incentive Plan, or the 2007 Plan, which governs equity awards made to employees and contractors of the Company prior to the IPO. The Company's board of directors administers all of these plans. Options outstanding vest based upon continued service at varying rates, but generally over four years from issuance with 25% vesting after one year of service and the remainder vesting monthly thereafter. Restricted stock and restricted stock units vest at varying rates. Options, restricted stock, and restricted stock units granted under the plans accelerate under certain circumstances on a change in control, as defined therein. No further awards were made under the iSocket Plan, the Chango Plan, or the 2007 Plan; available shares under the iSocket Plan and the Chango Plan were rolled into the available share pool under the 2014 Plan at the time of acquisition of each company, and available shares under the 2007 Plan were rolled into the available share pool under the 2014 Plan at the time of the IPO. An aggregate of 1,408,750 shares remained available for issuance at December 31, 2015 under the 2014 Plan and the Inducement Plan. The 2014 Plan has an evergreen provision pursuant to which the share reserve will automatically increase on January 1st of each year in an amount equal to 5% 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. The Inducement Plan has a provision pursuant to which the share reserve may be increased at the discretion of the Company's board of directors.

Stock Options

A summary of stock option activity for the year ended December 31, 2015 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, 2014	8,113	$ 8.05		
Granted	874	$ 16.59		
Options assumed in acquisitions	428	$ 4.43		
Exercised	(2,562)	$ 5.35		
Canceled	(650)	$ 11.56		
Outstanding at December 31, 2015	6,203	$ 9.76	7.40 years	$ 41,871
Vested and expected to vest at December 31, 2015	6,126	$ 9.71	7.38 years	$ 41,635
Exercisable at December 31, 2015	3,502	$ 7.77	6.75 years	$ 30,393

The total intrinsic value of options exercised during the years ended December 31, 2015, 2014, and 2013 were $28.3 million, $18.5 million, and $4.6 million, respectively.

At December 31, 2015, the Company had unrecognized employee stock-based compensation expense relating to stock options of approximately $14.8 million, which is expected to be recognized over a weighted-average period of 2.1 years.

The weighted-average grant date per share fair value of stock options granted for the years ended December 31, 2015, 2014, and 2013 were $9.25, $7.41, and $5.12, respectively.

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:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
Expected term (in years)	4.5	5.7	6.0
Risk-free interest rate	1.30%	1.75%	1.28%
Expected volatility	47%	51%	58%
Dividend yield	—%	—%	—%

At December 31, 2015 and 2014, there were options to purchase 45,375 and 346,986 shares of common stock outstanding, respectively, awarded to non-employees at a weighted-average exercise price of $2.79 and $4.42 per share, respectively. These awards generally vest over four years and expire through 2024. The Company recorded stock-based compensation of $0.4 million for the year ended December 31, 2015, $0.8 million for the year ended December 31, 2014 and $0.1 million for the year ended 2013, relating to these awards.

During the years ended December 31, 2015, 2014, and 2013, the Company modified the terms of existing stock options granted to certain employees and non-employees, to among other things, extend the exercise period and/or accelerate the vesting of options upon termination of employment. In connection with these modifications, the Company recorded stock-based compensation of $0.1 million, $0.2 million and $0.6 million, in the years ended December 31, 2015, 2014, and 2013, respectively.

Restricted Stock

A summary of restricted stock activity for the year ended December 31, 2015 is as follows:

	Number of Shares (in thousands)
Nonvested shares of restricted stock outstanding at December 31, 2014	1,750
Granted	552
Canceled	(73)
Vested	(750)
Nonvested shares subject to restricted stock outstanding at December 31, 2015	1,479

At December 31, 2015, the Company had unrecognized employee stock-based compensation expense for restricted stock with service conditions of approximately $12.0 million, which is expected to be recognized over a weighted-average period of 2.6 years. At December 31, 2015, the Company had unrecognized employee stock-based compensation expense for restricted stock with market conditions granted in a prior year of approximately $1.2 million, which is expected to be recognized over a weighted-average period of 5.4 years.

The weighted-average grant date per share fair value of restricted stock with service conditions granted for the years ended December 31, 2015 and 2014 was $16.75 and $16.22, respectively.

In May 2015, the Company granted certain executives shares of restricted stock that vest based on certain stock price performance metrics. The grant date fair value per share of restricted stock was $13.81, which was estimated using a Monte-Carlo lattice model. At December 31, 2015, the Company had unrecognized employee stock-based compensation expense of approximately $3.1 million, which is expected to be recognized over a weighted-average period of 2.3 years. The compensation expense will not be reversed if the performance metrics are not met.

At December 31, 2015, there were 12,500 shares of restricted stock outstanding for non-employees. The Company recorded stock-based compensation of $0.6 million for the year ended December 31, 2015 relating to these awards.

Restricted Stock Units

A summary of restricted stock unit activity for the year ended December 31, 2015 is as follows:

	Number of Shares (in thousands)
Nonvested shares of restricted stock units outstanding at December 31, 2014	845
Granted	2,356
Canceled	(325)
Vested	(229)
Nonvested shares subject to restricted stock units outstanding at December 31, 2015	2,647

At December 31, 2015, the Company had unrecognized employee stock-based compensation expense relating to restricted stock units of approximately $33.3 million, which is expected to be recognized over a weighted-average period of 3.3 years.

The weighted-average grant date fair value per share of restricted stock units granted for the years ended December 31, 2015 and 2014 was $16.45 and $13.22, respectively.

Employee Stock Purchase Plan

In November 2013, the Company's board of directors adopted the Company's 2014 Employee Stock Purchase Plan, or ESPP. The ESPP is designed to enable eligible employees to periodically purchase shares of the Company's common stock at a discount through payroll deductions of up to 10% of their eligible compensation, subject to any plan limitations. At the end of each six month offering period, employees 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 December 31, 2015, the Company has reserved 727,565 shares of its common stock for issuance under the ESPP and shares reserved for issuance will increase on January 1st of each year by the lesser of (i) a number of shares equal to 1% of the total number of outstanding shares of common stock on the December 31st immediately prior to the date of increase or (ii) such number of shares as may be determined by the board of directors. In 2015, a total of 169,362 shares of common stock were purchased under the ESPP. The Company estimated the total grant date fair value of the ESPP awards for the offering period ending in May 2016 of $0.5 million using a Black-Scholes model with the following assumptions: term of six months corresponding with the offering period; volatility of 48% based on the Company's historical volatility for a six-month period; no dividend yield; and risk-free interest rate of 0.33%. Compensation costs are recognized on a straight-line basis over the offering period.

Stock-Based Compensation Expense

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

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Cost of revenue	$ 240	$ 166	$ 87
Sales and marketing	7,415	3,217	1,105
Technology and development	4,963	2,228	1,645
General and administrative	17,966	18,235	3,515
Total stock-based compensation expense	$ 30,584	$ 23,846	$ 6,352

Note 14—Income Taxes

The following are the domestic and foreign components of the Company's loss before income taxes for the years ended December 31, 2015, 2014, and 2013:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Domestic	$ 15,723	$ (19,081)	$ (9,535)
International	(19,862)	580	533
Loss before income taxes	$ (4,139)	$ (18,501)	$ (9,002)

The following are the components of the provision (benefit) for income taxes for the years ended December 31, 2015, 2014, and 2013:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
	(in thousands)		
Current:			
Federal	$ 196	$ —	$ —
State	90	16	58
Foreign	367	308	189
Total current provision	653	324	247
Deferred:			
Federal	—	(10)	9
State	1	(1)	1
Foreign	(5,215)	(141)	(10)
Total deferred benefit	(5,214)	(152)	—
Total provision (benefit) for income taxes	$ (4,561)	$ 172	$ 247

The Company recorded an income tax benefit for the year ended December 31, 2015 of $4.6 million and an income tax expense for the years ended December 31, 2014 and 2013 of $0.2 million and $0.2 million, respectively. The tax benefit for the year ended December 31, 2015 is the result of the net operating losses generated by the Canadian operations, which include acquisitions from the last two years.

Set forth below is a reconciliation of the components that caused the Company's provision (benefit) for income taxes to differ from amounts computed by applying the U.S. Federal statutory rate of 34.0% for the years ended December 31, 2015, 2014, and 2013:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
U.S. federal statutory income tax rate	34.0 %	34.0 %	34.0 %
State income taxes, net of federal benefit	(1.4)%	(0.1)%	(0.4)%
Foreign income at other than U.S. rates	(31.0)%	0.8 %	— %
Stock-based compensation expense	(31.5)%	(4.4)%	(10.0)%
Meals and entertainment	(14.2)%	(1.7)%	(1.3)%
Acquisition and related items	(8.6)%	(0.1)%	— %
Non-deductible gifts	(0.8)%	(0.1)%	(0.2)%
Research and development tax credits	42.3 %	4.7 %	5.6 %
Tax effect of intercompany financing	11.2 %	— %	— %
Other permanent items	(0.5)%	(1.6)%	(0.5)%
Provision to return adjustments	(9.4)%	(0.2)%	— %
Change in valuation allowance	120.1 %	(32.2)%	(29.9)%
Effective income tax rate	110.2 %	(0.9)%	(2.7)%

Set forth below are the tax effects of temporary differences that give rise to a significant portion of the deferred tax assets and deferred tax liabilities as of December 31, 2015 and 2014:

	December 31, 2015	December 31, 2014
	(in thousands)	
Deferred Tax Assets:		
Accrued liabilities	$ 1,777	$ 649
Stock-based compensation	7,737	6,401
Net operating loss carryovers	18,609	23,241
Research tax credit carryovers	7,931	4,596
Other	1,926	1,357
Total deferred tax assets	37,980	36,244
Less valuation allowance	(29,255)	(32,481)
Deferred tax assets, net of valuation allowance	8,725	3,763
Deferred Tax Liabilities:		
Fixed assets	(2,630)	(777)
Intangible assets	(12,198)	(3,036)
Other	—	—
Total deferred tax liabilities	(14,828)	(3,813)
Net deferred tax liability	$ (6,103)	$ (50)

The change in valuation allowance for the year ended December 31, 2015, 2014, and 2013 was $3.2 million, $8.5 million and $1.1 million, respectively.

At December 31, 2015, the Company had U.S. federal net operating loss carryforwards, or NOLs, of approximately $59.8 million, which will begin to expire in 2027. At December 31, 2015, the Company had state NOLs of approximately $54.8 million, which will begin to expire in 2027. At December 31, 2015, the Company had foreign NOLs of approximately $13.7 million, which will begin to expire in 2026. At December 31, 2015, the Company had federal research and development tax credit carryforwards, or credit carryforwards, of approximately $6.1 million, which will begin to expire in 2027. At December 31, 2015, the Company had state research and development tax credits of approximately $5.1 million, which carry forward indefinitely. At December 31, 2015, the Company had foreign research tax credits of approximately $0.5 million, which carry forward indefinitely.

Utilization of certain NOLs and credit carryforwards may be subject to an annual limitation due to ownership change limitations set forth in the Internal Revenue Code of 1986, as amended, or the Code, and comparable state income tax laws. Any future annual limitation may result in the expiration of NOLs and credit carryforwards before utilization. A prior ownership change and certain acquisitions resulted in the Company having NOLs subject to insignificant annual limitations.

The Company recognizes excess tax benefits associated with stock-based compensation to stockholders' deficit only when realized based upon applying a with-and-without approach. At December 31, 2015, the Company had approximately $7.5 million of unrealized excess tax benefits associated with stock-based compensation.

At December 31, 2015, unremitted earnings of the subsidiaries outside of the United States were approximately $1.5 million, on which no U.S. taxes had been paid. The Company's intention is to indefinitely reinvest these earnings outside the United States. Upon distribution of those earnings in the form of a dividend or otherwise, the Company would be subject to both U.S. income taxes (subject to an adjustment for foreign tax credits) and withholding taxes payable to various foreign countries. The amounts of such tax liabilities that might be payable upon repatriation of foreign earnings, after consideration of corresponding foreign tax credits, are not material.

The following table summarizes the activity related to the unrecognized tax benefits (in thousands):

	Amount (in thousands)
Balance at January 1, 2013	$ 1,067
Increases related to current year tax positions	408
Decreases related to prior year tax positions	(21)
Balance at December 31, 2013	1,454
Increases related to current year tax positions	679
Decreases related to prior year tax positions	(2)
Balance as of December 31, 2014	2,131
Increases related to current year tax positions	2,194
Decreases related to prior year tax positions	—
Balance as of December 31, 2015	$ 4,325

Interest and penalties related to the Company's unrecognized tax benefits accrued at December 31, 2015, 2014, and 2013 were not material.

Due to the net operating loss carryforwards, the Company's United States federal and state returns are open to examination by the Internal Revenue Service and state jurisdictions for all years since inception. For Australia, Brazil, Canada, France, Germany, Italy, Japan, Singapore and the United Kingdom, all tax years remain open for examination by the local country tax authorities.

The Company does not expect its uncertain income tax positions to have a material impact on its consolidated financial statements within the next twelve months.

Note 15—Geographic Information

Revenues by geography are based on the location of the Company's sellers. The Company's revenue by geographical region were as follows:

	Year Ended		
	December 31, 2015	December 31, 2014	December 31, 2013
		(in thousands)	
United States	$ 172,188	$ 73,277	$ 51,461
United Kingdom	20,355	16,047	10,590
Other international	55,941	35,971	21,779
Total	$ 248,484	$ 125,295	$ 83,830

The Company's property and equipment, net by geographical region were as follows:

	December 31, 2015	December 31, 2014
	(in thousands)	
United States	$ 21,782	$ 12,680
Other international	3,621	2,516
Total	$ 25,403	$ 15,196

Note 16—401(K) Savings Plan

The Company has a defined contribution savings plan under Section 401(k) of the Code. This plan covers substantially all employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. Company contributions to the plan may be made at the discretion of the board of directors. To date, there have been no contributions made to the plan by the Company.

Note 17—Commitments and Contingencies

Operating Leases

The Company has commitments under non-cancelable operating leases for facilities and certain equipment, and its managed data center facilities. Total rental expenses were $13.3 million, $7.6 million and $4.7 million for the years ended December 31, 2015, 2014, and 2013, respectively.

During the year ended December 31, 2015, the Company entered into new operating leases. Future non-cancelable minimum commitments as of December 31, 2015 relating to these operating leases totaling $11.2 million are due through September 2023. During the year ended December 31, 2015, in connection with office leases, the Company entered into irrevocable letters of credit in the amount of $0.5 million. In addition, during the year ended December 31, 2015, the Company did not exercise the early termination option for the sublease for its headquarters in Los Angeles, California. As of December 31, 2015 future non-cancelable minimum commitments increased by $9.4 million for this sublease.

As of December 31, 2015 the Company's non-cancelable minimum operating lease commitments were as follows:

Fiscal Year	Amount
	(in thousands)
2016	$ 6,432
2017	5,835
2018	5,656
2019	4,910
2020	3,197
Thereafter	1,626
Total	$ 27,656

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 consolidated financial statements.

Litigation

The Company and its subsidiaries may from time to time be parties to legal or regulatory proceedings, lawsuits and other claims incident to their business activities and to the Company’s status as a public company. Such matters may include, among other things, assertions of contract breach or intellectual property infringement, claims for indemnity arising in the course of the Company’s business, regulatory investigations or enforcement proceedings, and claims by persons whose employment has been terminated. Such matters are subject to many uncertainties, and outcomes are not predictable with assurance. Consequently, management is unable to ascertain the ultimate aggregate amount of monetary liability, amounts which may be covered by insurance or recoverable from third parties, or the financial impact with respect to such matters as of December 31, 2015. However, based on management’s knowledge as of December 31, 2015, 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 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.

Other Contracts

The Company is party to an engagement letter with an investment bank entered into in 2009 and amended in 2012. Pursuant to the engagement letter, the investment bank provided and may continue to provide strategic and consulting advice to the Company. The engagement letter also provides that, in case of a merger, tender offer, stock purchase, or other transaction resulting in the acquisition of the Company by another entity or the transfer of ownership or control of the Company or substantially all of its assets to another entity (a “Change in Control Transaction”) that is consummated before December 7, 2016 or pursuant to a definitive agreement entered into before that date, (i) the investment bank will provide investment banking services in connection with a Change in Control Transaction, if requested by the Company, and (ii) the Company will pay to the investment bank a fee equal to 2.5% of the total consideration paid or payable to the Company or its stockholders in the Change in Control Transaction, whether or not the Company requests such investment banking services. The investment bank was not entitled to participate in and did not receive any fee in connection with the Company's IPO.

Note 18—Related Party Transactions

For the years ended December 31, 2015, 2014, and 2013, the Company recognized revenue of approximately $3.3 million, $1.9 million and $1.1 million, respectively, from entities affiliated with a holder of more than 10% of the Company’s outstanding common stock. At December 31, 2015 and 2014, accounts payable and accrued expenses included $6.5 million and $3.2 million, respectively, related to these revenue transactions.

During January 2013, the Company entered into a sublease for its headquarters in Los Angeles, California with an entity affiliated with a holder of more than 10% of the Company’s outstanding common stock. The sublease term began during June 2013 and terminates in April 2021. The Company had the option to terminate the sublease on its third anniversary date if the Company notified the sublessor one year in advance of its intended departure and paid a termination fee; however, the Company did not exercise the early termination option. At December 31, 2015, accounts payable and accrued expenses included $0.5 million related to this sublease. At December 31, 2014 there were no accounts payable and accrued expenses related to this sublease.

Note 19—Subsequent Events

On January 1, 2016, shares issuable under the Company’s 2014 Equity Incentive Plan increased by 2,330,002 shares and shares issuable under the Company’s 2014 Employee Stock Purchase Plan increased by 466,000 shares in accordance with the automatic annual increase provisions of such plans.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. 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 December 31, 2015, 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 December 31, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act).

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in “Internal Control - Integrated Framework” (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2015. Pursuant to applicable rules, our assessment of, and conclusion on, the effectiveness of internal control over financial reporting did not include certain financial components related to the business acquired from Chango in April 2015. These excluded components represented approximately 4% of our total assets at December 31, 2015 and 5% of our total managed revenue for the year ended December 31, 2015.

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.

Item 9B. Other Information

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 10 will be included under the captions "Directors, Executive Officers and Corporate Governance" and "Section 16(a) Beneficial Ownership Reporting Compliance" in our Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended December 31, 2015, or the 2016 Proxy Statement, and is incorporated herein by reference.

Item 11. Executive Compensation

The information required by Item 11 will be included under the captions "Executive Compensation" and "Director Compensation" in the 2016 Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by Item 12 will be included under the captions "Common Stock Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in the 2016 Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by Item 13 will be included under the captions "Certain Relationships and Related Party Transactions" and "Director Independence" in the 2016 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information required by Item 14 will be included under the caption "Independent Registered Public Accounting Firm" in the 2016 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) We have filed the following documents as part of this Annual Report on Form 10-K:

1. Consolidated Financial Statements

2. Financial Statement Schedules

No financial statement schedules are provided because the information called for is not required or is shown in the financial statements of the notes thereto.

3. Exhibits

See the Exhibit index immediately following the signature page of this Annual Report on Form 10-K.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

THE RUBICON PROJECT, INC.
(Registrant)

/s/ Todd Tappin

Todd Tappin
Chief Operating Officer and Chief Financial Officer
(Principal Financial Officer)

Date: March 4, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Name	Title	Date
/s/ Frank Addante Frank Addante	Chief Executive Officer and Director (Principal Executive Officer)	March 4, 2016
/s/ Todd Tappin Todd Tappin	Chief Operating Officer and Chief Financial Officer (Principal Financial Officer)	March 4, 2016
/s/ David Day David Day	Chief Accounting Officer (Principal Accounting Officer)	March 4, 2016
/s/ Robert J. Frankenberg Robert J. Frankenberg	Director	March 4, 2016
/s/ Sumant Mandal Sumant Mandal	Director	March 4, 2016
/s/ Gregory R. Raifman Gregory R. Raifman	Director	March 4, 2016
/s/ Robert F. Spillane Robert F. Spillane	Director	March 4, 2016
/s/ Lisa L. Troe Lisa L. Troe	Director	March 4, 2016
/s/ Lewis W. Coleman Lewis W. Coleman	Director	March 4, 2016

EXHIBIT INDEX

Number	Description
2.1	Agreement and Plan of Merger, dated November 13, 2014, by and among the Registrant, Pluto 2014 Acquisition Corp., iSocket, Inc., Shareholder Representative Services LLC, solely in its capacity as the initial Holder Representative thereunder, and certain persons delivering joinder agreements therewith (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the Commission on November 17, 2014).†
2.2	Arrangement Agreement, dated March 31, 2015, by and among the Registrant, Chango Inc., 2459502 Ontario Inc., the Supporting Shareholders, Fortis Advisors LLC, as the Securityholder Representative, and certain persons delivering joinder agreements therewith (incorporated by reference to Exhibit 2.1 to the Registrant’s Current Report on Form 8-K filed with the Commission on March 31, 2015). †
2.3	Amendment Agreement, dated as of April 20, 2015, by and among the Registrant, Chango Inc., and Fortis Advisors LLC, as the Securityholder Presentative (incorporated by reference to Exhibit 2.1 to the Registrant’s Current Report on Form 8-K filed with the Commission on April 27, 2015).
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 3.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2014).
10.1+	The Rubicon Project, Inc. 2007 Stock Incentive Plan and forms of agreements for employees thereunder (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-1/A filed with the Commission on March 20, 2014).
10.2+	The Rubicon Project, Inc. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 99.1 to the Registrant's Registration Statement on Form S-8 filed with the Commission on May 15, 2014).
10.3+	Form of Stock Option Grant Notice and Award Agreement for Employees under The Rubicon Project, Inc. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.2(B) to the Registrant’s Annual Report on Form 10-K filed with the Commission on March 6, 2015).
10.4+	Form of Restricted Stock Unit Grant Notice and Award Agreement for Employees under The Rubicon Project, Inc. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.2(C) to the Registrant’s Annual Report on Form 10-K filed with the Commission on March 6, 2015).
10.5+	Form of Stock Option Grant Notice and Award Agreement for Non-Employee Directors under The Rubicon Project, Inc. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.2(D) to the Registrant’s Annual Report on Form 10-K filed with the Commission on March 6, 2015).
10.6+	Form of Restricted Stock Unit Grant Notice and Award Agreement for Non-Employee Directors under The Rubicon Project, Inc. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.2(E) to the Registrant’s Annual Report on Form 10-K filed with the Commission on March 6, 2015).
10.7+*	Form Market Stock Award Notice and Award Agreement under The Rubicon Project, Inc. 2014 Equity Incentive Plan.
10.8+	The Rubicon Project, Inc. 2014 Employee Stock Purchase Plan (incorporated by reference to Exhibit 99.2 to the Registrant's Registration Statement on Form S-8 filed with the Commission on May 15, 2014).
10.9+	Form of Enrollment Agreement under The Rubicon Project, Inc. 2014 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3(B) to the Registrant’s Annual Report on Form 10-K filed with the Commission on March 6, 2015).
10.10+	The Rubicon Project, Inc. 2014 Inducement Grant Equity Incentive Plan (incorporated by reference to Exhibit 4.6 to the Registrant's Registration Statement on Form S-8 filed with the Commission on December 19, 2014).
10.11+	Form of Restricted Stock Unit Grant Notice under The Rubicon Project, Inc. 2014 Inducement Grant Equity Incentive Plan (incorporated by reference to Exhibit 4.7 to the Registrant’s Registration Statement on Form S-8 filed with the Commission on December 19, 2014).
10.12+	Form of Stock Option Grant Notice under The Rubicon Project, Inc. 2014 Inducement Grant Equity Incentive Plan (incorporated by reference to Exhibit 4.8 to the Registrant’s Registration Statement on Form S-8 filed with the Commission on December 19, 2014).
10.13+	Form of Restricted Stock Grant Notice under The Rubicon Project, Inc. 2014 Inducement Grant Equity Incentive Plan (incorporated by reference to Exhibit 4.9 to the Registrant’s Registration Statement on Form S-8 filed with the Commission on December 19, 2014).

10.14+	The Rubicon Project, Inc. 2015 Executive Cash Incentive Plan (incorporated by reference to Exhibit A to the Registrant's Definitive Proxy Statement on Schedule 14A filed with the Commission on April 2, 2015).
10.15	Amended and Restated Investors' Rights Agreement, dated October 29, 2010, by and among The Rubicon Project, Inc. and certain of its stockholders (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1/A filed with the Commission on March 20, 2014).
10.16+	Executive Employment Agreement, dated May 4, 2007, between adMonitor, Inc. and the Registrant's Chief Executive Officer, as amended December 14, 2007 (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.17+	Offer Letter, dated January 17, 2013, between The Rubicon Project, Inc. and the Registrant's President (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.18+	Offer Letter, dated January 17, 2013, between The Rubicon Project, Inc. and the Registrant's Chief Operating Officer and Chief Financial Officer (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.19	Loan and Security Agreement, dated September 27, 2011, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.20	Consent and Amendment to Loan and Security Agreement, dated May 22, 2012, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.21	First Amendment to Loan and Security Agreement, dated July 24, 2012, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.22	Assumption and Second Amendment to Loan and Security Agreement, dated September 14, 2012, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.10 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.23	Third Amendment to Loan and Security Agreement, dated September 28, 2012, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.11 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.24	Fourth Amendment to Loan and Security Agreement, dated February 8, 2013, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.12 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.25	Fifth Amendment to Loan and Security Agreement, dated September 30, 2013, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.26	Sixth Amendment to Loan and Security Agreement, dated December 9, 2013, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.14 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.27	Seventh Amendment to Loan and Security Agreement, dated as of July 29, 2015, by and among Silicon Valley Bank, the Registrant, and the other Borrowers thereunder (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2015).
10.28	Stock Pledge Agreement, dated October 3, 2013, by and between Silicon Valley Bank and the Registrant (incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.29	First Amendment to Stock Pledge Agreement, dated as of July 29, 2015, by and between Silicon Valley Bank and the Registrant (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2015).
10.30	Stock Pledge Agreement, dated as of July 29, 2015, by and between Silicon Valley Bank and Rubicon Project Unlatch, Inc. (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2015).
10.31	Additional Borrower Joinder Supplement, dated as of July 29, 2015, by and between Silicon Valley Bank, the Registrant, and the Additional Borrowers thereunder (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2015).

10.32	Form of Indemnification Agreement entered into between the Registrant and each of its directors and executive officers (incorporated by reference to Exhibit 10.17 to the Registrant's Registration Statement on Form S-1/A filed with the Commission on March 20, 2014).
10.33+	Form of Severance Agreement between the Registrant and certain of its executive officers (incorporated by reference to Exhibit 10.18 to the Registrant's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
10.34+	Form of Amendment No. 1 to Executive Severance and Vesting Acceleration Agreement between the Registrant and certain of its executive officers (incorporated by reference to Exhibit 10.1 to the Registrant Quarterly Report on Form 10-Q filed with the Commission on August 5, 2015).
10.35	Sublease, dated January 9, 2013, by and between Fox Interactive Media, Inc. and the Registrant (incorporated by reference to Exhibit 10.19 to the Company's Registration Statement on Form S-1 filed with the Commission on February 4, 2014).
21.1*	List of Subsidiaries of The Rubicon Project, Inc.
23.1*	Consent of PricewaterhouseCoopers LLP.
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 (2)	XBRL Instance Document
101.sch (2)	XBRL Taxonomy Schema Linkbase Document
101.cal (2)	XBRL Taxonomy Calculation Linkbase Document
101.def (2)	XBRL Taxonomy Definition Linkbase Document
101.lab (2)	XBRL Taxonomy Label Linkbase Document
101.pre (2)	XBRL Taxonomy Presentation Linkbase Document

* Filed herewith
\+ Indicates a management contract or compensatory plan or arrangement
† Certain schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company agrees to furnish supplementally copies of any of the omitted schedules upon request by the Securities and Exchange Commission.

(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.

(2) In accordance with Rule 406T of Regulation S-T, the information in these exhibits is furnished and deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act, is deemed not filed for purposes of section 18 of the Exchange Act of 1934, and otherwise is not subject to liability under these sections.

THE RUBICON PROJECT, INC.
2014 EQUITY INCENTIVE PLAN
MARKET STOCK AWARD AGREEMENT
(Performance-Based Vesting)

This Market Stock Award Agreement consisting of the Notice of Grant immediately below (the " **Notice of Grant**") and the accompanying Market Stock Award Agreement (the " **Market Stock Award Agreement** " and together with the Notice of Grant, the "**Agreement**") is made between The Rubicon Project, Inc. (the "**Company**") and ________________ ("**Participant**") as of the Issuance Date set forth in the Notice of Grant below.

NOTICE OF GRANT

The Company hereby grants to Participant a market stock award (the "**MSA**") consisting of shares of Common Stock subject to vesting as set forth below ("**Market Stock**"), and subject to the terms and conditions of the Plan and this Agreement. Unless otherwise defined herein, the terms defined in the 2014 Stock Incentive Plan, as amended (the "**Plan**") shall have the same defined meanings in this Agreement, and the terms Involuntary Termination, Disability, and Sale Transaction as used herein have the meanings given to them in the Severance Agreement.

For purpose of this Agreement, the terms in the left-hand column below have the corresponding meanings set forth opposite them in the right-hand column.

Common Stock	Common stock of the Company, par value $.0001 per share.
Issuance Date	_______
Issuance Date Fair Market Value	$____, which is the Fair Market Value on the Issuance Date.
Issuance Date Performance Value	$_______, which is the arithmetic mean of the closing prices for the Common Stock on the New York Stock Exchange as reported by _______ for each of the 20 consecutive trading days ending on and including the Issuance Date.
Issued Shares	_____ shares of Common Stock, which is 150% of the initial Target Shares (rounded to the nearest whole share with a result ending in .5 being rounded to the next higher whole share).
Measurement Date	The first to occur of (i) _______, (ii) the effective date of a Sale Transaction, or (iii) the date of termination of Participant's Continuous Service as a result of an Involuntary Termination, death, or Disability.
Measurement Date Performance Value	The arithmetic mean of the closing prices for the Common Stock on the New York Stock Exchange (or such other exchange or market system as may then be the primary exchange or market system upon which the Common Stock trades for at least a majority of the 20 trading days included in the average) as reported by _______ (or if _______ is not then reporting closing prices, then by a source of national standing that the Board or Committee deems reliable) for each of the 20 consecutive trading days ending on and including the Measurement Date, except that if the Measurement Date is the effective Date of a Sale Transaction, then the Measurement Date Performance Value is the effective value per share of Common Stock in the Sale Transaction rather than a trailing average.

Performance Factor	If the Calculated Quotient is less than 50%, the Performance Factor is zero. If the Calculated Quotient is more than 150%, the Performance Factor is 150%. If the Calculated Quotient is at least 50% but not more than 150%, the Performance Factor is equal to the Calculated Quotient. For this purpose, the "Calculated Quotient" is obtained by dividing the Measurement Date Performance Value by the Issuance Date Performance Value.
Severance Agreement	That certain Executive Severance and Vesting Acceleration Agreement between the Company and Participant.
Target Shares	Is initially _____ shares of Common Stock, which is determined as the quotient obtained by dividing$___________ by the Issuance Date Fair Market Value (rounded to the nearest whole share with a result ending in .5 being rounded to the next higher whole share). Subject to Section 3 of this Notice, if Participant's Continuous Service terminates before the earlier of _______ and the effective date of a Sale Transaction, on account of Participant's (i) death, (ii) Disability, (iii) Involuntary Termination not in connection with a Sale Transaction , or (iv) voluntary termination initiated by Participant, then the Target Shares shall be reduced to an amount equal to the product obtained by multiplying the initial Target Shares by a fraction, the numerator of which is the number of days from the Issuance Date to the date of termination of Participant's Continuous Service and the denominator of which is 1,066.
Vested Shares	The number of shares of Common Stock, consisting of none, some, or all of the Issued Shares, determined as the product obtained by multiplying the Performance Factor times the Target Shares as of the Measurement Date, after giving effect to any reduction in the number of Target Shares that results from termination of Participant's Continuous Service for any reason set forth in the section entitled "Target Shares".
Vesting Date	The date that the Board or Committee certifies the Measurement Date Performance Value, the Performance Factor, and the Vested Shares, as calculated by the Company as of the Measurement Date. If the Measurement Date is _______, it is anticipated that the Board or Committee will certify on May 15, _______, so that the Vesting Date coincides with the Company's regular May 15 vesting date for restricted stock and restricted stock unit awards, but the Board or Committee is not required to certify on May 15, _______.

1. As of the Issuance Date, the Company shall issue to Participant all of the Issued Shares.

2. The Issued Shares are subject to vesting as described in this Notice of Grant, and non-transferable prior to vesting as described in Section 14 of the Market Stock Award Agreement below. None of the Issued Shares will vest before the Vesting Date, and vesting of Issued Shares will occur only on the Vesting Date, without any ratable vesting for periods of time before the Vesting Date.

3. If Participant's Continuous Service is terminated by the Company with Cause at any time before the Vesting Date, or by Participant without Good Reason at any time before the first anniversary of the Issuance Date, then there will be no Measurement Date or Vesting Date, the MSA will automatically terminate, and the Issued Shares will be forfeited to and automatically reacquired by the Company at no cost to the Company, and Participant will have no further rights to the Issued Shares or otherwise under the MSA.

4. As of the Measurement Date, the Company shall determine and the Board or Committee shall certify the Measurement Date Performance Value, the Performance Factor, and the Vested Shares. Notwithstanding anything else, the Vested Shares may not exceed 150% of the Target Shares, as adjusted.

5. As of the Vesting Date, the transfer restrictions applicable to the Vested Shares shall lapse, and as promptly as practicable on or following the Vesting Date the Vested Shares shall be released from Escrow and delivered to Participant. If the application of the vesting methodology results in the vesting of a fractional Share, the number of Shares that shall become vested on the Vesting Date shall be rounded to the nearest whole Share.

6. Following the Measurement Date and any related Vesting Date, any and all Issued Shares in excess of the Vested Shares will be forfeited to and reacquired by the Company at no cost to the Company and Participant will have no further rights with respect to such forfeited shares.

7. Handling of the Issued Shares in case of Involuntary Termination of Participant's Continuous Service is set forth in this Agreement, and accordingly the vesting acceleration provisions of the Severance Agreement (*i.e.* Sections 2(b)(iv), 2(c)(iii), and 2(d) thereof) do not apply to the MSA or the Issued Shares.

Participant acknowledges receipt of a copy of the Plan and represents that Participant has reviewed the Plan and this Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Agreement, and fully understands this Agreement and the Plan. Participant further acknowledges that this Agreement and the Plan (including any exhibits to each document) set forth the entire understanding between Participant and the Company regarding the Shares subject to this Agreement and supersede all prior oral and written agreements with respect thereto, including, but not limited to, any other agreement or understanding between Participant and the Company relating to Participant's Continuous Service and any termination thereof, compensation, or rights, claims or interests in or to the Shares.

PARTICIPANT:	**THE RUBICON PROJECT, INC.**:
______________________________	By: ______________________________
Signature	

MARKET STOCK AWARD AGREEMENT

1. Grant of Market Stock. The Company hereby grants to the Participant named in the Notice of Grant an award of Restricted Stock, subject to all of the terms and conditions in this Market Stock Award Agreement and the Plan, which are incorporated herein by reference. The Notice of Grant above is referred to in this Agreement as the "**Notice of Grant**." This Market Stock Award Agreement and the Notice of Grant are referred to collectively as the "**Agreement**" relating to the Restricted Stock described in the Notice of Grant. Restricted Stock issued pursuant to the Agreement is referred to in this Agreement as "**Restricted Stock**."

2. Company's Issuance of Common Stock. As of the Issuance Date set forth in the Notice of Grant, the Company issues to Participant the Issued Shares as set forth in the Notice of Grant subject to the vesting requirements set forth in the Notice of Grant (each, a "**Share**" and collectively, the "**Shares**"). All Shares shall be held in escrow by an authorized officer of the Company in accordance with the terms of the Joint Escrow Instructions attached hereto as Exhibit A. Participant will have no right to the release of any Shares from the escrow created by the Joint Escrow Instructions (the "**Escrow**") unless and until the Shares have vested in the manner set forth in Section 4 and the restrictions in Section 14 shall have lapsed.

3. Participant Representations.

(a) Participant acknowledges that (i) Participant was and is free to use professional advisors of Participant's choice in connection with this Agreement and any grant of Restricted Stock, that Participant understands this Agreement and the meaning and consequences of receiving a grant of Restricted Stock and unrestricted Shares released from the Escrow upon vesting of such Restricted Stock, and is entering into this Agreement freely and without coercion or duress; and (ii) Participant has not received and is not relying, and will not rely, upon any advice, representations or assurances made by or on behalf of the Company or any of its Affiliates or any employee of or counsel to the Company or any of its Affiliates regarding any tax or other effects or implications of receiving a grant of Restricted Stock or the holding of Shares or other matters contemplated by this Agreement.

(b) Participant is aware of the Company's business affairs and financial condition and understands that an investment in the Shares involves a high degree of risk. Participant is aware of the lack of liquidity of the Shares and the restrictions on transferability on the Restricted Stock and the Shares, whether vested or unvested, including that Participant may not be able to sell or dispose of them or use them as collateral for loans.

(c) If at the time of issuance or release from Escrow of any Restricted Stock, there is not in effect under the Securities Act of 1933, as amended (the "**Securities Act**") a registration statement covering the Shares to be issued, and available for delivery a prospectus meeting the requirements of Section 10(a)(3) of the Securities Act, Participant shall, if required by the Company, as a condition to issuance or delivery of the Shares, (i) deliver to the Company Participant's Investment Representation Statement in the form attached hereto as Exhibit B; and/or (ii) make appropriate representations in a form satisfactory to the Company that such Shares will not be sold other than (A) pursuant to an effective registration statement under the Securities Act, or an applicable exemption from the registration requirements of such Act; (B) in compliance with all applicable state securities laws and regulations; and (C) in compliance with all terms and conditions of the Plan, this Notice, and any other written agreement between Participant and the Company or any Affiliates.

4. Vesting Schedule. The Shares will vest in accordance with the vesting schedule and other provisions set forth or referred to in the Notice of Grant, whereupon the Escrow and restrictions on transfer applicable to such vested Shares under this Agreement will lapse. Any restrictions that lapse with respect to shares of Restricted Stock upon vesting will lapse with respect to whole Shares. Any Shares that do not become vested and released from Escrow following a Measurement Date or termination of Participant's Continuous Service not resulting in a Measurement Date will be forfeited to and reacquired by the Company at no cost to the Company and Participant will have no further rights with respect to such forfeited Shares.

5. Lock-Up. In connection with any underwritten public offering by the Company of its equity securities pursuant to a registration statement filed under the Securities Act, upon the request of the Company or the underwriters managing such offering, during the Lock-up Period (as defined below) Participant shall not, without the prior written consent of the Company or its underwriters, directly or indirectly sell (except for tax-related sales described in Section 8(d)), make any short sale of, loan, hypothecate, pledge, offer, grant or sell any option or other contract for the purchase of, purchase any option or other contract for the sale of, enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of, or otherwise dispose of or transfer, or agree to engage in any of the foregoing transactions with respect to, any Shares or other securities into which the Shares may be converted or that are issued in respect of the Shares (other than those included in the registration). For this purpose, the "**Lock-up Period**" means such period of time after the effective date of the registration as is requested by the Company or the underwriters; provided that such period shall not exceed 180 days (or such additional period as may reasonably be requested by the Company or such underwriter to accommodate regulatory restrictions on (i) the publication or other distribution of research reports or (ii) analyst recommendations and opinions, including (without limitation) the restrictions set forth in Rule 2711(f)(4) of the National Association of Securities Dealers and Rule 472(f)(4) of the New York Stock Exchange, as amended, or any similar successor rules). The Company's underwriters shall be beneficiaries of the agreement set forth in this Section 5, and Participant shall execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In addition, if requested by the Company or the underwriters of Common Stock (or other securities) of the Company, Participant shall provide, within ten (10) days of such request, such information as may be required or reasonably requested by the Company or the underwriters in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 5 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the Shares (or other securities) subject to the foregoing restriction until the end of said one hundred and eighty (180) day (or other) period. Participant agrees, and will cause any transferee to agree, that any transferee of the award of Restricted Stock or Shares acquired pursuant to the award of Restricted Stock shall be bound by this Section 5.

6. Section 409A. It is the intent of this Agreement that the issuance of Restricted Shares be exempt from the requirements of Section 409A pursuant to the regulations promulgated so that none of the Shares granted under the award of Restricted Stock will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. For purposes of this Agreement, "**Section 409A**" means Section 409A of the Code, and any proposed, temporary or final Treasury Regulations and Internal Revenue Service guidance thereunder, as each may be amended from time to time.

7. Death of Participant. Any distribution or delivery of Shares to be made to Participant under this Agreement (including the Joint Escrow Instructions) will, if Participant is then deceased, be made to Participant's designated beneficiary, or if no beneficiary survives Participant, the administrator or executor of Participant's estate. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer, and (c) the agreement contemplated by Section 14(b).

8. Tax Consequences, Withholding, and Liability.

(a) Participant understands that Participant may suffer adverse tax consequences as a result of the grant or vesting of the Restricted Stock and issuance and/or disposition of the Shares. Participant understands that the actual tax consequences associated with the Restricted Stock and Shares are complicated and depend, in part, on Participant's specific situation and may also depend on the resolution of currently uncertain tax law and other variables not within the control of the Company. THEREFORE, PARTICIPANT SHOULD SEEK INDEPENDENT ADVICE REGARDING THE APPLICABLE PROVISIONS OF THE FEDERAL TAX LAW AND THE TAX LAWS OF ANY MUNICIPALITY, STATE OR FOREIGN COUNTRY TO WHICH PARTICIPANT IS SUBJECT. By receiving and acknowledging this grant of Restricted Stock, Participant acknowledges and agrees that Participant has either consulted with a competent tax advisor independent of the Company to obtain tax advice concerning the Restricted Stock and Shares in light of Participant's specific situation or has had the opportunity to consult with such a tax advisor and has chosen not to do so. Neither the Company nor any of its employees, counsel or agents has provided to Participant, and Participant has not relied upon from the Company nor any of its employees, counsel or agents, any written or oral advice or representation regarding the U.S. federal, state, local and foreign tax consequences of the receipt, ownership and vesting of the Restricted Stock, the issuance of Shares pursuant to the grant of Restricted Stock, the other transactions contemplated by this Agreement, or the value of the Company or the Restricted Stock at any time. With respect to such matters, Participant relies solely on Participant's own advisors.

(b) Participant (and not the Company) shall be responsible for Participant's own tax liability that may arise as a result of the receipt, ownership and vesting of the Restricted Stock, the issuance of Shares pursuant to the award of Restricted Stock, or the other transactions contemplated by this Agreement. Pursuant to such procedures as the Board or its Committee may specify from time to time, the Company shall satisfy its obligations to pay withholding taxes or other tax deposits in connection with the receipt, ownership and/or vesting of the Restricted Stock, the issuance of Shares pursuant to the award of Restricted Stock, or the other transactions contemplated by this Agreement in the minimum amount required to satisfy such obligations in accordance with applicable law or regulation (the "**Tax Obligations**"). If amounts paid by the Company in respect of Tax Obligations are less than Participant's tax obligations, Participant is solely responsible for any additional taxes due. If amounts paid by the Company in respect of Tax Obligations exceed Participant's tax obligations, Participant's sole recourse will be against the relevant taxing authorities, and the Company and its Affiliates will have no obligation to issue additional shares or pay cash to Participant in respect thereof. Participant is responsible for determining Participant's actual income tax liabilities and making appropriate payments to the relevant taxing authorities to fulfill Participant's tax obligations and avoid interest and penalties.

(c) Payment by the Company of the Tax Obligations will result in a commensurate obligation of Participant to pay, or cause to be paid, to the Company or its Affiliate the amount of Tax Obligations so paid, and the Escrow Agent shall not be required to release any of the affected Shares from the Escrow and the Company shall not be obligated to deliver any pecuniary interest in the affected Shares to the Participant unless and until Participant has satisfied this obligation. Subject to the preceding sentence, the Board or its Committee, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit Participant to satisfy the Tax Obligations, in whole or in part (without limitation) by any of the following means or any combination of two or more of the following means: (i) paying cash, (ii) having the Escrow Agent deliver to the Company Shares otherwise deliverable to Participant having a Fair Market Value equal to the amount of such Tax Obligations, (iii) having the Company withhold the amount of such Tax Obligations from Participant's paycheck(s), (iv) delivering to the Company already vested and owned Shares having a Fair Market Value equal to such Tax Obligations, or (v) selling such number of such Shares otherwise deliverable to Participant having an aggregate Fair Market Value equal to the amount of the Tax Obligations through such means as the Company may determine in its sole discretion (whether through a broker or otherwise). To the extent determined appropriate by the Company in its discretion, it shall have the right (but not the obligation) to cause Participant to satisfy any or all Tax Obligations by having the Escrow Agent deliver to the Company Shares otherwise deliverable to Participant having an aggregate Fair Market Value equal to the amount of such Tax Obligations. If, at the time Shares are to be issued, to the extent that those Shares cannot be sold within three months pursuant to Rule 144 and are not otherwise freely tradeable on a national securities exchange or market system (and for this purpose, a blackout pursuant to the Company's insider trading policy will not be considered to render the Shares not freely tradeable), Participant may in Participant's sole discretion satisfy the Tax Obligations by electing to have the Escrow Agent deliver to the Company such number of Shares otherwise deliverable to Participant, and/or by surrendering such number of Shares already delivered to Participant or other shares of the Company's common stock, having an aggregate Fair Market Value equal to the amount of such Tax Obligations. In order to satisfy the Tax Obligations, the Company will not withhold the amount of such Tax Obligations from Participant's paycheck[s] and/or any other amounts payable to Participant unless the amount generated by any other method used to satisfy such Tax Obligations is not sufficient to satisfy such Tax Obligations in their entirety.

(d) If (i) on a date that the risk of forfeiture to the Company as described in this Notice lapses with respect to some or all of the Restricted Stock ("**Lapse Date**") the Company's Common Stock is listed and trades on a recognized stock exchange or market system; and (ii) Participant incurs a tax liability on such Lapse Date as a result of such lapse, then the Applicable Percentage (as defined below) of the Restricted Stock with respect to which the risk of forfeiture shall have lapsed on the Lapse Date, shall be sold within an administratively reasonable period of time on or after the Lapse Date by a broker selected or approved by the Company at such fees and pursuant to such rules and process as the Company may reasonably approve. Participant will bear the brokerage fees and other costs associated with sales and related transmission of funds. The net proceeds from such sale shall be remitted to the relevant tax authorities as determined by the Company for Participant's benefit in the amounts directed by the Company, or paid to the Company in reimbursement of any Tax Obligations paid by the Company, and any remaining net proceeds shall be delivered to Participant or a brokerage account maintained for Participant. For these purposes the "**Applicable Percentage**" means forty-five percent (45%), provided that the Company may in its discretion from time to time adjust the Applicable Percentage to an amount reasonably expected to be required to satisfy any or all Tax Obligations and selling expenses. Participant shall have no right to affect or influence any adjustments that the Company may elect to make to the Applicable Percentage for this purpose. There is no assurance that sale of the Applicable Percentage of the Shares will be adequate to cover Participant's tax liabilities, and Participant is responsible for payment of any taxes in excess of amounts paid on behalf of Participant.

(e) Under Section 83(a) of the Code, Participant will generally be taxed on the shares of Restricted Stock subject to this award on the date(s) such shares of Restricted Stock vest and the forfeiture restrictions lapse, based on their Fair Market Value on such date, at ordinary income rates subject to payroll and withholding tax and tax reporting, as applicable. Under Section 83(b) of the Code, Participant may elect to be taxed on the shares of Restricted Stock on the Issuance Date, based upon their Fair Market Value on such date, at ordinary income rates subject to payroll and withholding tax and tax reporting, as applicable. If Participant elects to accelerate the date on which Participant is taxed on the shares of Restricted Stock under Section 83(b), an election (an "**83(b) Election**") to such effect must be filed with the Internal Revenue Service within 30 days from the Issuance Date and applicable withholding taxes must be paid to the Company at that time. The foregoing is only a summary of the federal income tax laws that apply to the shares of Restricted Stock under this Agreement and does not purport to be complete. The actual tax consequences of receiving or disposing of the shares of Restricted Stock are complicated and depend, in part, on Participant's specific situation and may also depend on the resolution of currently uncertain tax law and other variables not within the control of the Company. THEREFORE, PARTICIPANT SHOULD SEEK INDEPENDENT ADVICE REGARDING THE APPLICABLE PROVISIONS OF THE FEDERAL TAX LAW AND THE INCOME TAX LAWS OF ANY MUNICIPALITY, STATE OR FOREIGN COUNTRY TO WHICH PARTICIPANT IS SUBJECT. By receiving this grant of Restricted Stock, Participant acknowledges and agrees that Participant has either consulted with a competent tax advisor independent of the Company to obtain tax advice concerning the Shares in light of Participant's specific situation or has had the opportunity to consult with such a tax advisor and has chosen not to do so. If Participant determines to make an 83(b) Election, it is Participant's responsibility to file such an election with the Internal Revenue Service within the 30-day period after the Issuance Date, to deliver to the Company a signed copy of the 83(b) Election, to file an additional copy of such election form with Participant 's federal income tax return for the calendar year in which the Issuance Date occurs, and to pay applicable withholding taxes to the Company at the time that the 83(b) Election is filed with the Internal Revenue Service.

9. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until such Shares have been issued and recorded on the records of the Company or its transfer agents or registrars. No adjustment shall be made for any dividends (ordinary or extraordinary, whether cash, securities, or other property) or distributions or other rights for which the record date is prior to the date Shares are issued, except as provided in Section 11. After such issuance and recordation, Participant will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares. Any dividends or distributions payable with respect to unvested Restricted Stock will be subject to the same restrictions and vesting requirements as the shares of Restricted Stock with respect to which they are paid and shall be held in escrow by an authorized officer of the Company in accordance with the terms of the Joint Escrow Instructions attached hereto as Exhibit A.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RESTRICTED STOCK PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY SATISFYING THE CONDITIONS SET FORTH THEREIN AND CONTINUING, PURSUANT TO THE TERMS OF THIS AGREEMENT, TO PROVIDE SERVICE AT THE WILL OF THE COMPANY (OR THE AFFILIATE EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS AWARD OF RESTRICTED STOCK OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT TO PROVIDE SERVICES FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE AFFILIATE EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S SERVICE AT ANY TIME, FOR ANY REASON OR NO REASON, WITH OR WITHOUT NOTICE, AND WITH OR WITHOUT CAUSE.

11. Capital Structure Adjustments. Except as otherwise provided herein, appropriate and proportionate adjustments shall be made in the number and class of Shares (or any other securities or other property as to which the Shares may be exchanged for, converted into, or otherwise transferred) subject to the award of Restricted Stock in the event of a stock dividend, stock split, reverse stock split, recapitalization, reorganization, merger, consolidation, separation, or like change in the capital structure of the Company that directly affects the class of shares to which such Shares belong.

12. Additional Conditions to Issuance of Stock.

(a) Legal and Regulatory Compliance. The issuance and release from Escrow of Shares shall be subject to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. If at any time the Company determines, in its discretion, that the listing, registration or qualification of the Shares upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary as a condition to the issuance or release from Escrow of Shares to Participant (or his or her estate), such issuance or delivery will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. If the Company determines that the issuance or delivery of any Shares will violate federal securities laws or other applicable laws or regulations or the requirements of any exchange or market system upon which the Shares are listed, the Company may defer issuance or release from Escrow until the earliest date at which the Company reasonably anticipates that the issuance or release from Escrow of Shares will no longer cause such violation. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority, but the inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance or release from Escrow of any Shares shall relieve the Company of any liability in respect of the failure to issue or release from Escrow such Shares as to which such requisite authority shall not have been obtained. As a condition to the issuance or release from Escrow of Shares, the Company may require Participant to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

(b) Obligations to the Company. As a condition to vesting and release from Escrow of any shares of Restricted Stock, Participant must enter into the Company's Intellectual Property Assignment and Confidential Information Agreement, or a similar or successor agreement for the protection of the Company's intellectual property and confidential information, in form specified by the Company (the "**Proprietary Interests Agreement**"), if the Participant has not already done so, and Participant's receipt of any Shares released from the Escrow will constitute Participant's agreement to the Proprietary Interests Agreement. If Participant breaches in any material respect the Proprietary Interests Agreement or any other contract between Participant and the Company, or Participant's common law duty of confidentiality or trade secret protection, the Company may suspend any vesting of any Restricted Stock pending Participant's cure of such breach.

13. Handling of Shares; Restrictive Legends and Stop-Transfer Orders.

(a) Certificates or Book Entries. The Company may in its discretion issue physical certificates representing Shares, or cause the Shares to be recorded in book entry or other electronic form and reflected in records maintained by or for the Company. The Secretary of the Company, or such other escrow holder as the Secretary may appoint, shall retain physical custody of any certificate representing Shares that have not vested and been released from Escrow.

(b) Legends. Each certificate or data base entry representing any Shares may be endorsed with legends substantially as set forth below, as well as such other legends as the Company may deem appropriate to comply with applicable laws and regulations:

> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD OF TIME FOLLOWING THE EFFECTIVE DATE OF ANY UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES SET FORTH IN AN AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER PRIOR TO THE EXPIRATION OF SUCH PERIOD WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN VESTING REQUIREMENTS AND RESTRICTIONS ON TRANSFER SET FORTH IN A RESTRICTED STOCK AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH REQUIREMENTS AND RESTRICTIONS IN FAVOR OF THE ISSUER OR ITS ASSIGNEE(S) ARE BINDING ON THE TRANSFEREES OF THESE SHARES.

(c) Stop-Transfer Notices. In order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(d) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or any other agreement to which the Shares are subject or any laws governing the Shares or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

14. Restrictions on Transfer.

(a) Restricted Stock. Except as otherwise expressly provided in this Agreement, the Restricted Stock that has not vested and been released from Escrow and the rights and privileges conferred by this Agreement will not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of any Restricted Stock that has not vested and been released from Escrow or any right or privilege conferred by this Agreement, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void.

(b) Restrictions Binding on Transferees. In addition to any other restrictions set forth herein, any transfer of Shares that have not vested and been released from Escrow or any interest therein shall be conditioned upon the transferee agreeing in writing, on a form prescribed by the Company, to be bound by all provisions of this Agreement. Any sale or transfer of the Shares shall be void unless the provisions of this Agreement are satisfied.

15. Additional Agreements.

(a) Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to Restricted Stock by electronic means or request Participant's consent to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to administration of this Agreement, the Restricted Stock through any on-line or electronic system established and maintained by the Company or another third party designated by the Company.

(b) Personal Information. To facilitate the administration of the Plan and this Agreement, it may be necessary for the Company (or its payroll administrators) to collect, hold and process certain personal information about Participant, including, but not limited to, Participant's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of Company Common Stock or directorships held in the Company, details of all awards issued under the Plan or any other entitlement to shares of Company Common Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor, for the exclusive purpose of implementing, administering and managing the Plan ("**Data**") and to transfer this Data to certain third parties such as transfer agents, stock plan administrators, and brokers with whom Participant or the Company may elect to deposit any Shares. Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of Participant's Data for the exclusive purpose of implementing, administering and managing Participant's participation in the Plan. Participant understands that Data will be transferred to the Company's transfer agent, broker, administrative agents or such other stock plan service provider as may be selected by the Company in the future, which is assisting the Company with the implementation, administration and management of the Plan. Participant understands that the recipients of the Data may be located in the United States or elsewhere, and that the recipients' country (e.g., the United States) may have different data privacy laws and protections than Participant's country. Participant understands that if he or she resides outside the United States, he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. The Participant authorizes the Company, the Company's broker, administrative agents, and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purpose of implementing, administering and managing the Participant's participation in the Plan. The Participant understands that Data will be held only as long as is necessary to implement, administer and manage Participant's participation in the Plan. The Participant understands if he or she resides outside the United States, he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, Participant understands that he or she is providing the consents herein on a purely voluntary basis. If Participant does not consent, or if Participant later seeks to revoke his or her consent, his or her employment status or service and career with the Company will not be adversely affected; the only adverse consequence of refusing or withdrawing Participant's consent is that the Company would not be able to grant Restricted Stock or other equity awards or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that he or she may contact his or her local human resources representative. Finally, upon request of the Company, Participant agrees to provide an executed data privacy consent form to the Company that the Company may deem necessary to obtain under applicable data privacy laws or regulations, either now or in the future. Participant understands that he or she will not be able to participate in the Plan if he or she fails to execute any such consent or agreement.

(c) Proprietary Information**.** Participant agrees that all financial and other information relating to the Company furnished to Participant constitutes “Proprietary Information” that is the property of the Company. Participant shall hold in confidence and not disclose or, except within the scope of Participant’s Service, use any Proprietary Information. Participant shall not be obligated under this paragraph with respect to information Participant can document is or becomes readily publicly available without restriction through no fault of Participant. Upon termination of Participant’s employment, Participant shall promptly return to Company all items containing or embodying Proprietary Information (including all copies). This paragraph supplements, but does not limit, any other agreement between Participant and the Company, or any applicable law, related to protection, ownership, or use of the Company’s information or property.

(d) Consideration. Except as may otherwise be set forth in the applicable Notice of Grant, Restricted Stock is issued in consideration of services provided by Participant and/or other benefit to the corporation within the meaning of Section 152 of the General Corporation Law of the State of Delaware; Participant is not required to make any cash payment to the Company in respect of issuance or delivery of Restricted Stock.

16. General.

(a) No Waiver; Remedies. Either party’s failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision , or prevent that party from thereafter enforcing such provision and each and every other provision of this Agreement. The rights granted both parties herein are cumulative and shall not constitute a waiver of either party’s right to assert all other legal remedies available to it under the circumstances.

(b) Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Participant and Participant’s heirs, executors, administrators, successors and assigns. The rights and obligations of Participant under this Agreement may only be assigned with the prior written consent of the Company.

(c) Notices. Any notice under this Agreement shall be in writing (which shall include electronic transmission) and shall be deemed received (i) the business day following electronic verification of receipt if sent electronically, (ii) upon personal delivery to the party to whom the notice is directed, (iii) the business day following deposit with a reputable overnight courier, or (iv) five days after deposit in the U.S. mail, First Class with postage prepaid. Notice shall be addressed to the Company at its principal executive office and to Participant at the address that he or she most recently provided to the Company. Participant agrees that it is Participant’s responsibility to notify the Company of any changes to his or her mailing address so that Participant may receive any shareholder information to be delivered by regular mail.

(d) Interpretation. Headings herein are for convenience of reference only, do not constitute a part of this Agreement, and will not affect the meaning or interpretation of this Agreement. References herein to Sections are references to the referenced Section hereof, unless otherwise specified. The Board or its Committee will have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any shares of Restricted Stock have vested). All actions taken and all interpretations and determinations made by the Plan Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. Neither the Board or its Committee nor any person acting on behalf of the Board or its Committee will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

(e) Modifications to the Agreement. Modifications to this Agreement can be made only in an express written contract executed by a duly authorized officer of the Company and shall not require the consent of the Participant unless such modification would materially adversely affect the rights of the Participant under this Agreement. Notwithstanding anything to the contrary in the Plan or this Agreement, the Company reserves the right to revise this Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to comply with Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A in connection to this award of Restricted Stock.

(f) Governing Law; Severability. This Agreement is governed by the internal substantive laws, but not the choice of law rules, of Delaware. If any provision of this Agreement becomes or is declared by a court or arbitrator having jurisdiction over a dispute hereunder to be illegal, unenforceable or void, such provision shall be amended to the extent necessary to conform to applicable law so as to be valid and enforceable and to achieve, to the extent possible, the economic, business and other purposes of such illegal, unenforceable, or void provision or, if such provision cannot be so amended without materially altering the intention of the parties, then such provision shall deleted from this Agreement and the remainder of this Agreement shall continue in full force and effect.

(g) Entire Agreement. The Plan is incorporated herein by reference. The Plan and this Agreement (including the exhibits referenced herein, including the Joint Escrow Instructions), along with any Separate Agreement (to the extent applicable) constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof. Participant expressly warrants that Participant is not executing this Agreement in reliance on any promises, representations, or inducements other than those contained herein. Participant has read and understands the terms and provisions of the Plan and this Agreement, and agrees with the terms and conditions of this grant of Restricted Stock in accordance with the Plan and this Agreement.

(h) Counterparts. This Agreement may be executed in more than one counterpart, each of which shall be deemed an original, but all of which together shall constitute but one and the same instrument. Facsimile or photographic copies of originally signed copies of this Agreement will be deemed to be originals.

<u>**EXHIBIT A**</u>

EXPLANATORY COVER SHEET

JOINT ESCROW INSTRUCTIONS

These Joint Escrow Instructions are intended for use with The Rubicon Project, Inc. 2014 Stock Incentive Plan Market Stock Award Agreement (the "**Restricted Stock Agreement**").

These Joint Escrow Instructions are used for issuances of shares of the Corporation's Common Stock subject to vesting ("**Restricted Stock**") pursuant to the Restricted Stock Agreement. The Restricted Stock is subject to forfeiture to the Corporation unless and until the Restricted Stock shall have vested in the manner set forth in the Restricted Stock Agreement and the restrictions set forth in the Restricted Stock Agreement shall have lapsed. The Restricted Stock is also subject to various restrictions on transfer as set forth in the Restricted Stock Agreement until the time that the Common Stock is publicly traded and any lock-up period has expired or a Change in Control of the Corporation occurs. The Escrow Agent, generally the Secretary, Assistant Secretary or General Counsel of the Corporation, holds any stock certificate or other documentation representing the shares underlying the grant of Restricted Stock in escrow in a secure location. **If the Corporation is holding the certificate or other documentation, please use the following procedures:**

Get an originally signed copy of the Restricted Stock Agreement and the Joint Escrow Instructions.

Place these original documents, together with any **original stock certificate or other original documentation** representing the escrowed shares **and** a copy of the check used for payment (if applicable) in a secure (preferably locked) location. These documents should be delivered personally to the Escrow Agent. The documents should be in an envelope (one for each grantee) clearly labeled with the grantee's name and the grant number on the outside.

Place a note in any other files or records referring to the Restricted Stock Agreement that the original stock certificate or other documentation has been transferred to the secure location on a specific date. Put a <u>copy</u> of the stock certificate or other documentation, the Restricted Stock Agreement and the Joint Escrow Instructions in a separate file used for day to day administration of the 2014 Equity Incentive Plan.

Calendar the expiration of the vesting on the administrative calendar so that the shares can be released from escrow in a timely manner. Confirm that the restrictions on transfer have lapsed before releasing any shares from escrow, even vested shares.

JOINT ESCROW INSTRUCTIONS

[Escrow Agent]**THE RUBICON PROJECT, INC.**
12181 BLUFF CREEK DRIVE, 4TH FLOOR
LOS ANGELES, CALIFORNIA 90094

Dear Sir:

As Escrow Agent for both The Rubicon Project, Inc., a Delaware corporation ("Corporation"), and the undersigned grantee of stock of the Corporation ("Grantee"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain The Rubicon Project, Inc. 2014 Equity Incentive Plan Market Stock Award Agreement ("Agreement"), dated ________, to which a copy of these Joint Escrow Instructions is attached as Exhibit A, in accordance with the following instructions:

These Joint Escrow Instructions are used for issuances of shares of the Corporation's Common Stock subject to vesting ("**Restricted Stock**") pursuant to the Agreement. The Restricted Stock is subject to forfeiture to the Corporation unless and until the Restricted Stock shall have vested in the manner set forth in the Agreement and the restrictions set forth in the Agreement shall have lapsed. At such time, the shares underlying the Restricted Stock shall be released from escrow to the Grantee.

Any dividends or distributions payable with respect to unvested Restricted Stock will be subject to the same restrictions as the shares of Common Stock underlying the Restricted Stock with respect to which they are paid and will be deposited in the Escrow and held by the Escrow Agent, and will be released from the Escrow at the same time as the underlying shares of Restricted Stock.

In the event the Restricted Stock shall fail to vest as set forth in the Agreement, the Corporation or its assignee will give to Grantee and you a written notice specifying the number of shares of stock to be forfeited to the Corporation, the purchase price (if any), and the time for a closing hereunder at the principal office of the Corporation. Grantee and the Corporation hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

At the closing you are directed (a) to date any stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver same, together with any certificate or other documentation evidencing the shares of stock to be transferred, to the Corporation against the simultaneous delivery to you of the purchase price (if any) of the number of shares of stock being forfeited to the Corporation.

Grantee irrevocably authorizes the Corporation to deposit with you any certificates or other documentation evidencing shares of stock to be held or controlled by you hereunder and any additions and substitutions to said shares as specified in the Agreement. Grantee does hereby irrevocably constitute and appoint you as Grantee's attorney-in-fact and agent for the term of this escrow to execute with respect to such securities and other property all documents of assignment and/or transfer and all stock certificates or other documentation necessary or appropriate to make all securities negotiable and complete any transaction herein contemplated.

This escrow shall terminate upon vesting of the Restricted Stock but only if the restrictions placed on the Restricted Stock and described in the Agreement relating to restrictions on transfer shall have lapsed. At such time, the shares underlying the Restricted Stock shall be released to the Grantee but only upon Grantee's satisfaction of any and all Tax Obligations (as defined in the Agreement) and other applicable conditions under the Restricted Stock Agreement and the Plan.

If at the time of termination of this escrow you have in your possession any documents, securities, or other property belonging to Grantee, you shall deliver all of same to Grantee and shall be discharged of all further obligations hereunder; *provided, however,* that if at the time of termination of this escrow you are advised by the Corporation that the property subject to this escrow is the subject of a pledge or other security agreement, you shall deliver all such property to the pledgeholder or other person designated by the Corporation.

Except as otherwise provided in these Joint Escrow Instructions, your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties or their assignees. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Grantee while acting in good faith and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law, and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree of any court, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

You shall not be liable in any respect on account of the identity, authority or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

You shall not be liable for the outlawing of any rights under any statute of limitations with respect to these Joint Escrow Instructions or any documents deposited with you.

Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be an employee of the Corporation or if you shall resign by written notice to each party. In the event of any such termination, the Corporation may appoint any officer or assistant officer of the Corporation as successor Escrow Agent and Grantee hereby confirms the appointment of such successor or successors as Grantee's attorney-in-fact and agent to the full extent of your appointment.

If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall cooperate in furnishing such instruments.

It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities, you are authorized and directed to retain in your possession or control without liability to any person all or any part of said securities until such dispute shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery, delivery by express courier or five days after deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties hereunto entitled at the following addresses, or at such other addresses as a party may designate by ten days' advance written notice to each of the other parties hereto:

CORPORATION: **THE RUBICON PROJECT, INC.**
12181 Bluff Creek Drive, Suite 400
Los Angeles, CA 90094
Attn: General Counsel

GRANTEE: ***NAME***

ESCROW AGENT: **[Name]**
The Rubicon Project, Inc.
12181 Bluff Creek Drive, Suite 400
Los Angeles, CA 90094

By signing these Joint Escrow Instructions you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Agreement.

You shall be entitled to employ such legal counsel and other experts (including without limitation the firm of Gibson, Dunn & Crutcher LLP) as you may deem necessary properly to advise you in connection with your obligations hereunder. You may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor. The Corporation shall be responsible for all fees generated by such legal counsel in connection with your obligations hereunder.

This instrument shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns. It is understood and agreed that references to "you" or "your" herein refer to the original Escrow Agent and to any and all successor Escrow Agents. It is understood and agreed that the Corporation may at any time or from time to time assign its rights under the Agreement and these Joint Escrow Instructions in whole or in part.

This Agreement shall be governed by and interpreted and determined in accordance with the laws of the State of California, as such laws are applied by the California courts to contracts made and to be performed entirely in California by residents of that state.

Very truly yours,

THE RUBICON PROJECT, INC.:

By: ______________________________

GRANTEE:

____
NAME

ESCROW AGENT:

____

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

PARTICIPANT :

COMPANY : THE RUBICON PROJECT, INC.

SECURITY : COMMON STOCK

AMOUNT :

DATE :

In connection with the receipt of the above-listed Securities, the undersigned Participant represents to the Company the following:

(a) Participant is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Participant is acquiring these Securities for investment for Participant's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Participant acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Participant's investment intent as expressed herein. In this connection, Participant understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Participant's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Participant further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Participant further acknowledges and understands that the Company is under no obligation to register the Securities. Participant understands that the certificate evidencing the Securities shall be imprinted with any legend required under applicable securities laws and regulations.

(c) Participant is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of Restricted Stock to Participant, the grant shall be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of the applicable conditions specified by Rule 144, including in the case of Affiliates (1) the availability of certain public information about the Company, (2) the amount of Securities being sold during any three (3) month period not exceeding specified limitations, (3) the resale being made in an unsolicited "broker's transaction", transactions directly with a "market maker" or "riskless principal transactions" (as those terms are defined under the Securities Exchange Act of 1934) and (4) the timely filing of a Form 144, if applicable.

If the Company does not qualify under Rule 701 at the time of grant of Restricted Stock, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which may require (i) the availability of current public information about the Company; (ii) the resale to occur more than a specified period after the purchase and full payment (within the meaning of Rule 144) for the Securities; and (iii) in the case of the sale of Securities by an Affiliate, the satisfaction of the conditions set forth in sections (2), (3) and (4) of the paragraph immediately above.

(d) Participant further understands that if all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption shall be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 shall have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Participant understands that no assurances can be given that any such other registration exemption shall be available in such event.

PARTICIPANT:

____
Signature

____
Print Name

Date:

EXHIBIT 21.1

SUBSIDIARIES OF THE RUBICON PROJECT, INC.

Rubicon Project Hopper, Inc.	(Delaware)
Rubicon Project Unlatch, Inc.	(Delaware)
Rubicon Project Turing, Inc.	(Delaware)
Advertising Automation Accelerator, LLC	(Delaware)
Rubicon Project Edison, Inc.	(Delaware)
Rubicon Project Curie, Inc.	(Delaware)
Rubicon Project Bell, Inc.	(Delaware)
Chango USA, Inc.	(Delaware)
5monkeys, Inc.	(Delaware)
Caviar Acquisition Corp.	(Delaware)
Rubicon Project Daylight, Inc.	(Delaware)
Project Daylight, LLC	(Delaware)
The Rubicon Project Chango, Inc.	(Canada)
The Rubicon Project Canada, Inc.	(Canada)
The Rubicon Project Ltd.	(United Kingdom)
The Rubicon Project GmbH	(Germany)
The Rubicon Project SARL	(France)
The Rubicon Project SRL	(Italy)
Rubicon Project K.K.	(Japan)
The Rubicon Project Singapore Pte. Ltd.	(Singapore)
The Rubicon Project Australia PTY Limited	(Australia)
Rubicon Project Serviços De Internet LTDA.	(Brazil)

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-204012, 333-201174, and 333-195972) of The Rubicon Project, Inc. of our report dated March 4, 2016 relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Los Angeles, CA
March 4, 2016

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, Frank Addante, certify that:

1. I have reviewed this Annual Report on Form 10-K 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)) 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/ Frank Addante

Frank Addante
Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)

Date: March 4, 2016

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, Todd Tappin, certify that:

1. I have reviewed this Annual Report on Form 10-K 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)) 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/ Todd Tappin

Todd Tappin
Chief Operating Officer and Chief Financial Officer
(Principal Financial Officer)

Date: March 4, 2016

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), Frank Addante, Chief Executive Officer and Chairman of the Board (Principal Executive Officer) of The Rubicon Project, Inc. (the "Company"), and Todd Tappin, Chief Operating Officer and Chief Financial Officer (Principal Financial Officer) of the Company, each hereby certifies that, to the best of his knowledge:

1. Our Annual Report on Form 10-K for the year ended December 31, 2015, 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: March 4, 2016

/s/ Frank Addante

Frank Addante
Chief Executive Officer and Chairman of the Board
(Principal Executive Officer)

/s/ Todd Tappin

Todd Tappin
Chief Operating Officer and 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.