Rocket Fuel Inc.
Form 10-K
March 16, 2017

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

FORM 10-K

(Mark One)
x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
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: 001-36071

ROCKET FUEL INC.
(Exact name of registrant as specified in its charter)

Delaware	30-0472319
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

2000 Seaport Boulevard, Suite 400, Pacific Shores Center, Redwood City, CA 94063
(Address of principal executive offices and Zip Code)
(650) 595-1300
(Registrant's telephone number, including area code)

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

Common Stock, $0.001 par value(Title of each class)	The NASDAQ Stock Market LLC(Name of each exchange in which registered)

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act of 1933. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"). Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, 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 x No ¨

1

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 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. x

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 definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, was $57,915,287 based upon the closing price reported for such date on the NASDAQ Global Select Market. Shares of common stock held by each executive officer, director and by each person who owns 5% or more of the registrant's outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

On February 28, 2017, there were 46,254,505 shares of the registrant's common stock, par value $0.001, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement for the registrant's 2016 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K where indicated. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of December 31, 2016, the last day of the fiscal year covered by this Annual Report on Form 10-K.

EMERGING GROWTH COMPANY

We are an ‘‘emerging growth company’’ as that term is defined in the Jumpstart Our Business Startups Act of 2012 and, as such, we have elected to comply with certain reduced public company reporting requirements.

ROCKET FUEL INC.
FORM 10-K
TABLE OF CONTENTS

TRADEMARKS

“Rocket Fuel,” the Rocket Fuel logo, “Moment-Scoring,” “Marketing that Learns,” and other trademarks or service marks of Rocket Fuel appearing in this Annual Report on Form 10-K are the property of Rocket Fuel Inc. Trade names, trademarks and service marks of other companies appearing in this Annual Report on Form 10-K are the property of their respective holders and should be treated as such.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the "Exchange Act." The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “w "should," “project,” “plan,” “expect,” "predict," "target" or the negative of these terms or similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning the following:

- expectations for financial performance in 2017, including revenue and the levels of operating expenses in the areas of research and development, sales and marketing and general and administrative;
- our goal of reducing the cost of customer service, operations, account management, IT, and general and administrative functions as a percentage of revenue in future periods;
- the impact that our sales strategies and our product mix, including our managed service and self-service platform offerings, will have on our revenue, media and other costs of revenue and gross margins;
- the expected impact of seasonality on our operating results;
- our expectations regarding our headcount needs in 2017;
- our ability to improve the productivity and efficiency of our resources and infrastructure;
- the expected impact of our expense reduction and operating efficiency initiatives
- our expectation regarding capital expenditures in 2017;
- the usefulness of non-GAAP financial measures, customer and operating metrics for understanding and evaluating our operating results;
- our plans to finance data center hardware requirements through capital leasing facilities;
- the adequacy of our office facilities to meet or exceed our needs for the immediate future and our ability to sublease unused facilities;
- our expectation that, subject to achieving our operating plan for 2017, existing cash and cash equivalents will be sufficient to meet our business requirements for at least the next 12 months;
- anticipated growth of the digital advertising market and of brand advertising as part of that market;
- the ability of our solutions to deliver intended results to customers, including but not limited to the ability of our Programmatic Marketing Platform to successfully combine the functionality of our DSP with features of our DMP in a manner that is attractive to customers and prospects;
- the ability to effectively market our Programmatic Marketing Platform, through the integration of technologies and capabilities arising from our acquisition of [x+1];
- our ability to adapt our relationships with agencies and agency holding companies in light of the evolving competitive environment, and the anticipated success of our sales strategy;
- our expectation that we will improve our abilities to attract new customers, and to retain and gain a larger amount of our current customers’ advertising budgets;
- our ability to achieve revenue growth by better tailoring our sales model to differing sizes of customers and prospects, and by improving the focus of our sales representatives on our core offerings;
- our expectations regarding an increase in the number of active customers;

- our ability to avoid serving ads on unsafe or inappropriate websites or to non-human targets;
- our ability to continue to expand internationally;
- our expectation that, as our foreign sales and expenses increase, our operating results may be more affected by fluctuations in the exchange rates of the currencies in which we do business; and
- our intention to vigorously defend against pending securities lawsuits.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Annual Report on Form 10-K.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for us to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur and actual results could differ materially and adversely from those anticipated or implied in our forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results and circumstances described in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report on Form 10-K to conform these statements to actual results or to changes in our expectations, except as required by law.

You should read this Annual Report on Form 10-K and the documents that we reference in this Annual Report on Form 10-K and have filed as exhibits thereto with the Securities and Exchange Commission, or "SEC," with the understanding that our actual future results and circumstances may be materially different from what we expect.

PART I

ITEM 1. BUSINESS

Overview

Rocket Fuel is a technology company that brings the power of machine learning to the world of digital marketing, offering a Predictive Marketing Platform designed to help marketers and their agencies connect with consumers through digital media at moments when that connection is most likely to be influential and most likely to achieve the advertiser's objectives.

We are focused on the large and growing digital advertising market, where marketers are confronting an age-old challenge: how to deliver better return on investment, or "ROI," which encompasses both the measurement of that effective return, and a comparison with other approaches to delivering advertising assets. Doing such measurement involves difficulties in terms of speed and scale, in that there are tens of billions of daily ad purchases across all digital advertising exchanges and other sources of digital advertising inventory. Our platform autonomously purchases these ad spots, or impressions, one at a time, on real-time advertising exchanges to create portfolios of impressions designed to optimize the goals of our advertisers, such as increased sales, heightened brand awareness and decreased cost per customer acquisition.

Our core service offerings are organized around two platforms - Demand Side Platform, or "DSP" and a Data Management Platform, or "DMP" - which can be used by independently or together, or can be integrated with a customer's other customer relationship management or marketing platforms. We refer to our DSP alone or our DSP plus DMP solutions as our Predictive Marketing Platform. That integrated platform is designed to deliver and optimize media spend to engage, upsell, and retarget consumers across addressable channels-including display, mobile, video, social, and television, and across addressable devices, including tablets, personal computers, set top boxes, television, and mobile phones. We offer our Predictive Marketing Platform as a managed service, which we operate on behalf of our customers (our "Media Services"), and as a technology solution our customers acquire and operate themselves, or acquire and obtain supporting services from us (our "Platform Solutions").

Core to our ability to connect advertisers and consumers is our artificial intelligence engine, which consists of big data-driven predictive modeling and automated decision-making components. Our Predictive Marketing Platform is designed to address the needs of marketers in a time when the amount of demographic, psychographic, and most fundamentally, behavioral data, has reached a mass that defies human intuition or comprehension, and requires the use of machine learning to offer real time analysis of the moments of influence, and make the decision to act upon the moments most likely to be influential.

Each ad purchasing decision on real time advertising exchanges must be made in milliseconds, which means any analysis and decision-making must happen in an even shorter period of time. Our Predictive Marketing Platform uses a technology we call Moment Scoring™, which is designed to consider in a fraction of a second whether a particular advertising opportunity, or impression, is the right time to influence a consumer, based on our platform's real-time scoring - positive or negative - of the likelihood of consumer engagement with the advertisement based on relevant attributes. If the score is positive, we determine the value of that impression to the particular advertising campaign and how much we are willing to bid for that opportunity. If we win the bid, then the ad is served. This entire process takes place in approximately 100 milliseconds and over 100 billion times daily for a thousand or more advertising campaigns.

In addition to paid media options, a company may have tens of millions of interactions daily with its customers and prospects through its "owned media" or customer relationship management channels, such as its website, mobile applications, call centers, email, point of sale terminals, loyalty cards, and retail stores. Every company needs to make decisions about what to do with its data, and a smart company can optimize its customers' experiences and its own marketing by making the best use of the opportunities it has to interact with its customers.

In both cases of paid and owned media, our Predictive Marketing Platform is designed to learn from each message it delivers and apply that learning to future decisions as an advertising campaign is being delivered - a feature we call Marketing that Learns™. This enables us to deliver solutions designed to optimize over time for both direct-response and brand campaigns focused on generating specific consumer actions or engagements, and other marketing programs designed to help marketers acquire, retain, and grow their customer base. The benefit of a platform that is designed to autonomously adapt and learn while solving multiple problems simultaneously instead of solving one specific problem at a time, is that our platform is capable of simultaneously running thousands of marketing programs with highly diverse goals across multiple channels.

We were incorporated in Delaware in 2008. In July 2014, we announced the general availability of our self-service DSP, in North America and Europe. In September 2014, we acquired X Plus Two Solutions, Inc., the parent company of [x+1], a privately held programmatic marketing technology company. Our acquisition of [x+1] allowed us to add important assets to our technology solutions, including our DMP. Since September 2014, we have worked to join our DSP and DMP platforms into a combined platform, and this has allowed us to introduce our Predictive Marketing Platform.

Our Offerings

Our Predictive Marketing Platform is comprised of the following technologies.

Demand Side Platform (DSP)

Our proprietary artificial intelligence, or "AI" -driven DSP is built on our real-time optimization engine, which leverages big data and our vast computational infrastructure to purchase and deliver highly-automated digital advertising campaigns that are measurable against direct response and brand objectives. We make our DSP available to advertisers or their agencies as a fully managed service, through a self-service interface, or a combination of managed and self-service options.

Our DSP offerings are designed to enable direct-response and brand advertisers to optimize toward virtually any measurable advertising goal. Given the extensibility and flexibility of our DSP, our offerings are able to address the needs of advertisers across geographies, industry verticals, advertiser goals, and through addressable channels including display, mobile, social, video and programmatic TV.

Direct Response Objectives

Our direct response solution is focused on the following direct-response objectives:

- Prospecting. Advertisers have various prospecting objectives, such as number of leads, sign-ups, registrations or sales. Our Predictive Marketing Platform is designed to track every impression delivered and continuously learn from campaign results to refine our delivery of impressions to the appropriate consumers and achieve each advertiser’s direct-response objectives. As our DSP optimizes over the course of campaigns, we believe that advertisers experience steady improvement against the prospecting goals they have defined.

- Retargeting. As advertisers succeed in bringing consumers to their websites, our retargeting offering uses our Moment Scoring Technology to help return those same or similar consumers to the advertisers’ websites, focusing specifically on the consumers most likely to perform a desired action. Unlike other retargeting solutions that merely display advertisements to every consumer that has visited an advertiser’s website regardless of the value of such placements, our offering focuses on consumers who represent high-value opportunities for re-engagement, aiming to reach them at the best time and in the best context to achieve the advertiser’s goals.

- Sales Uplift. We find that some sophisticated direct response advertisers and their agencies want to optimize not only for a specified digital outcome (such as completion of a form, or establishment of a digital shopping cart) but also to maximize truly incremental sales. This is measured as the increase in revenue compared to a control group of customers who were not exposed to similar advertising. Through the same kinds of techniques used for offline sales or brand equity lift, we can develop digital maps that can be calibrated against sales uplift.

Brand Objectives

Brand objectives are commonly measured as an increase in a specified metric related to a target audience. Digital brand campaigns most commonly focus on any of the following, often with a specific, third party validated audience as the target being measured against:

- Reach, frequency and engagement. Traditionally, brand advertisers have focused on reach, frequency and engagement goals to assess the effectiveness of their advertising campaigns. Our DSP is designed to track, measure and optimize these goals through specific consumer actions, such as clicks, advertisement interactions and video completions. Our platform values and bids on billions of individual advertising impressions per day to maximize campaign performance measured against the goals defined by the advertiser.

- Audience Accuracy. Brand advertising is audience specific, and our DSP is designed to optimize towards a defined audience, most commonly a particular age and gender range as measured by third parties such as Nielsen, Comscore and others.

- Brand equity lift. Our DSP is designed to track, measure and optimize brand equity lift objectives. We use online surveys to measure these objectives, such as consumer awareness, recall, message association, purchase consideration, favorability and recommendation intent. Our technology is designed to automatically incorporate survey responses to enable optimization and calibration against online and offline brand equity lift as measured by third parties such as Nielsen, Comscore and others.

- Offline sales. Many interactions that consumers have with a brand occur offline. We are able to connect online activity to offline sales or responses by integrating a variety of industry-specific offline data sources, such as retail purchase activity, coupon usage and grocery store purchase activity. Our technology is designed to measure and optimize campaigns, while they run, to maximize offline impact as measured by third parties.

Data Management Platform (DMP)

Our DMP augments the capabilities of our DSP for media purchases. By using our Predictive Marketing Platform, our advertisers can run analytics on data derived from their paid and owned media channels and develop a better understanding of their consumers. Our DMP enables:

- Data Management: Our DMP is designed to allow marketers to ingest, analyze, segment, and export their own and third-party audience data for advertising, customer relationship management, or "CRM," email marketing, call-center routing, or other opportunities to touch consumers with a message or call-to-action. Our Predictive Marketing Platform allows marketers to leverage their own data within our DSP or other media buying platforms of their choice.

- Multi-modal Advertising Optimization: Our Predictive Marketing Platform is designed to allow marketers to seamlessly execute programmatic advertising campaigns globally through our platform, and apply learning and insights from the DMP to augment campaign performance. Moreover, our Predictive Marketing Platform is designed to enable cross-channel (e.g. display, video, mobile, and social) and cross-device (e.g. smartphone and desktop) campaigns, thereby reducing friction and eliminating the need to work with multiple companies that offer point solutions.

Other Features

- Brand Assurance. Advertiser brand protection is a high priority for us. We have adopted a proactive approach designed to prevent us from serving advertisements on unsafe or inappropriate websites, and designed to protect advertisers from forms of fraud in the modern digital ecosystem. We have a brand-assurance team that monitors our brand safety efforts, makes policy decisions, offers guidance to advertisers and continuously analyzes and improves our Brand Assurance offering. We have proprietary technology designed to identify and block fraudulent activity, and we work with independent third parties to validate our approach and further our efforts against fraud.

- Insights. We identify the key drivers of an advertising campaign's success and help marketers improve and optimize future marketing strategies and creative development. Our Insights feature is designed to help advertisers understand what strategies are effective and why, and allows them to better understand the quality, composition and characteristics of the consumers their campaigns reach, including which consumers are most responsive to their messages.

Our Technology

We believe our technology is disrupting traditional approaches to digital advertising. The digital advertising campaigns we run are designed to be effective, as well as efficient and easy for us to set up and manage, and do not require advertisers to know or guess who their target audiences are, nor the best digital channels through which to

reach them. Instead, our AI-driven technology reaches desired consumers globally by programmatically buying advertising inventory. We primarily access inventory through real-time bidding, or RTB, which is the real-time purchase and sale of advertising inventory on an impression-by-impression basis on real-time advertising exchanges. For each impression that we purchase on behalf of an advertiser, our technology determines precisely the amount that we will bid for each single opportunity based on our technology's valuation of that opportunity in real time.
We bid on billions of these impressions per day in approximately 100 milliseconds per bid request. As our engine learns which attributes best contribute to meeting an advertiser's campaign goals, it adapts as the campaign runs to improve performance

measured against these goals. We believe this enables us to deliver more rapid optimization and better campaign results than the periodic manual adjustments of traditional solutions. Leveraging the massive amounts of inventory available through real-time advertising exchanges, our solution enables advertisers to efficiently connect with large audiences while it maintains a focus on results-driven optimization.

We have invested in and will continue to invest in developing our differentiated and proprietary technology, aimed at solving the problems of marketers in ways that traditional, and point solutions, cannot. We have assembled a team of highly skilled engineers and computer scientists with deep expertise across a broad range of relevant disciplines. Key focus areas of our engineering team include:

- Artificial Intelligence. We employ AI technology, including predictive modeling and automated decision-making. Our platform has analyzed millions of attributes from our data warehouse, as evidenced by the billions of impressions and bid requests processed daily, to determine the most effective attributes, monitored in real time, to predict expected consumer response and precise impression value.

- Computational infrastructure. We use a combination of proprietary and open source software to achieve a horizontally scalable, global, distributed and fault-tolerant architecture, with the goal of enabling us to ensure the continuity of our business, regardless of local disruptions. Our computational infrastructure currently processes tens of billions of events per day and is designed in a way that enables us to add significant capacity to our platform as we scale our business without requiring any material design or architecture modifications. Our technology infrastructure is hosted across several data centers in co-location facilities in California, Germany, New Jersey, Nevada, Virginia, Hong Kong and the Netherlands. Our servers are custom designed by our engineering team.

- Big Data. We have built a multi-tier big data management system based on proprietary and open source software to help us maintain a variety of data in many different formats. Our data includes anonymized user profile data that is accessible at very low latencies and used to execute our campaigns. In addition, we maintain a large data warehouse with multi-petabytes of data that we use for algorithm training and reporting.

- Bidding adapters. Bidding adapters enable us to receive bid requests from real-time advertising exchanges, evaluate each request and either reject the request or respond with a bid. The adapters then present our proposed bid and advertisement to the advertising exchange in the format required by the exchange. Bidding adapters allow us to easily expand and adapt our platform across multiple inventory sources, including across different channels, such as display, mobile, video, and programmatic TV.

- User Interface and Reporting Tools. Based on the latest HTML5 technologies, our user interface provides flexible reporting and interactive visualization of the key drivers of success for each advertising campaign. We use these reporting and visualization products internally to manage campaigns, and provide advertisers with the ability to manage their own campaigns, form custom audiences and to gain campaign insights.

- Platform Convergence. To enhance our Predictive Marketing Platform, we continue to converge the best attributes from our DSP and our DMP for a unified user experience across our DSP, DMP and web site optimization interfaces.

Our research and development expenses were $35.4 million, $44.9 million, and $39.8 million for the years ended December 31, 2016, 2015 and 2014, respectively. Our capitalized internal-use software development costs were $13.1 million, $15.5 million, and $9.4 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Our Customers

We interact with customers primarily through advertising agencies acting on their behalf. We also work with some customers directly. We also make our self-service platform available to agency holding companies, who in turn use our platform to service operating advertising agencies affiliated with the holding company, and to independent agencies.

9

During 2016, we served a diverse advertiser base across industry verticals, such as automotive, cable, computer manufacturing, education, finance and insurance, health care, hospitality and food services, retail and telecommunications. For the years ended December 31, 2016, 2015 and 2014, No single customer represented 10% or more of our revenue.

Sales and Marketing

In North America, Europe, and Australia we sell our solutions through direct sales teams, which focus on advertising agencies and advertisers, as well as on other third parties. Our direct sales team is organized by geography, with regional offices in the United States and offices in Canada, the United Kingdom, Australia, France, Germany, Italy, Spain, and Sweden. We also sell our solutions through resellers and channel partners.

We are focused on managing our brand, increasing market awareness and generating new advertiser leads. To do so, we often present at industry conferences, create customer 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, composes whitepapers, publishes marketing collateral, generates online content and undertakes customer research studies and surveys.

Employees and Culture

We are proud of our company culture, and believe it is one of our fundamental strengths as well as a strategic priority. Our employees are focused on technological innovation to improve our solution for advertisers and marketers. We encourage creativity and open dialogue to improve on ideas through iteration.

As of December 31, 2016, we had 851 full-time employees, consisting of 665 employees in the United States and 186 employees internationally. This compared to 954 full-time employees as of December 31, 2015. In January 2017, we announced a plan to further improve our operational efficiency, which included a reduction of approximately 11% of our workforce.

Our Competition

Our industry is highly competitive and fragmented. We compete with large, well-established companies such as Google, Facebook, Yahoo! and digital advertising networks. In addition, we compete against other companies that offer robust digital marketing solutions and demand side and data management technology platforms that allow advertisers to purchase inventory directly and manage and analyze their own customer data. We also compete with divisions of certain advertising agencies, including agency trading desks, that place digital advertising on behalf of the agencies' clients, and other companies, many of which claim to use advanced technologies to optimize advertising campaigns. As we introduce new offerings, as our existing offerings evolve, or as other companies introduce new products and services, we may become subject to additional competition.

We compete for advertising revenue based on our ability to meet advertiser goals, the effectiveness and relevance of our offerings, pricing structure, ease-of-use, scalability, cross-channel and cross-device capabilities, customer service, breadth and depth of customer relationships and awareness of our brand. In addition, as we move forward with our Predictive Marketing Platform, we will also compete based on (i) our ability to offer a comprehensive technology solution that meets the needs of our customers and (ii) the ease of integration with customers' other systems and databases.

Intellectual Property

The protection of our technology and intellectual property is an important component of our success. We rely on intellectual property laws, including trade secret, copyright, trademark and patent laws in the United States and abroad, and use contracts, confidentiality procedures, non-disclosure agreements, employee disclosure and invention assignment agreements and other contractual rights to protect our intellectual property.

In September 2014, we acquired two issued patents and one pending non-provisional patent application in the United States as a result of our acquisition of [x+1]. As of December 31, 2016, we had 2 issued patents in the United States. Our issued patents are expected to expire between May and September 2022. As of December 31, 2016, we had pending 11 non-provisional patent applications in the United States and one application in Great Britain. In addition, we maintain a trademark portfolio in the United States and abroad, including trademarks or trademark applications in Australia, Brazil, China, European Union, Hong Kong, India, Japan, Singapore and Russia.

Circumstances outside of our control could pose a threat to our intellectual property rights. Effective intellectual property protection may not be available in the United States or other countries in which we provide our solution. In addition, the efforts we have taken to protect our intellectual property rights may not be sufficient or effective. Any impairment of our intellectual property rights could harm our business, our ability to compete and our results of operations.

Privacy and Interest-based Advertising

Much of the acceptance and widespread use of digital media across the globe is attributable to the ability of consumers to access valuable content quickly, without friction, and free of charge. The digital media content providers, or publishers, who support the creation and distribution of this content do so largely by selling advertisements on their properties, similar to the business model of television and radio broadcasters. Online it is possible to serve advertisements to potential consumers based upon interests that are inferred in part from a consumer’s online actions and web-browsing history, although some companies have distributed programs called "ad blockers" that online consumers could use to prevent the display of all or some advertising. The use of web browsing history to inform advertising purchase decisions is commonly referred to as “interest-based” or “online behavioral” advertising. Advertisers are willing to make a greater investment in, and pay a higher rate for, digital advertising when this interest-based data can be used to inform decisions about purchasing advertising impressions to reach desired consumers.

The use of interest-based advertising has come under scrutiny by consumer advocacy organizations and regulatory agencies in the U.S. and abroad that focus on online privacy. Because we rely upon access to large volumes of data, including web browsing history, primarily through cookies, it is essential that we monitor developments in this area in the U.S. and globally, and that we engage in responsible privacy practices. The collection of specific geo-location data, including latitude and longitude and IP address, and the collection of mobile device identifiers, are also important signals that assist our technology when optimizing our clients' marketing campaigns. If regulatory agencies and legislative bodies in different regions and markets enact rules or enforce guidance that limits how geo-location and device identification data may be collected and used, it could limit our ability to run successful advertising campaigns for our clients. Our privacy practices are described in our privacy policy, which explains the type of data we collect and use to provide services to advertisers. Our privacy policy can be found on our website at http://rocketfuel.com/privacy-policy. The information contained on, or that can be accessed through, our website is not a part of this Annual Report on Form 10-K.

We are also active members of industry self-regulatory organizations, including the Network Advertising Initiative, or "NAI," and the Digital Advertising Alliance, or "DAA," and participate in the Self-Regulatory Program for Online Behavioral Advertising coordinated by the DAA and enforced by both the Direct Marketing Association and the Council of Better Business Bureaus. Similarly, in Europe we are signatories to the IAB Europe EU Framework for Online Behavioural Advertising and are members of the European Digital Advertising Alliance, or EDAA.

For further information, please see our Risk Factors in Item 1A "Risk Factors" of this Annual Report on Form 10-K.

Seasonality

In the advertising industry, companies commonly experience significant seasonal fluctuations in revenue. Many advertisers allocate the largest portion of their budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing. Historically, the fourth quarter of our fiscal year reflects our highest level of advertising activity and associated revenue, and the first quarter reflects the lowest level of such activity. For more information regarding the impact of seasonality on our business, please refer to Part II, Item 7 of this Annual Report on Form 10-K, "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Factors Affecting Our Performance."

Financial Information about Segments and Geographic Areas

We manage our operations as a single reportable segment. For information regarding our reporting segment, and revenue and long-lived assets by geographic location please refer to Note 13 to our Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K. For information regarding risks associated with our international operations, please refer to “Risk Factors” in Part I, Item 1A in this Annual Report on Form 10-K.

Available Information

You can obtain copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed with, or furnished to, the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, free of charge from our website at www.rocketfuel.com as soon as reasonably practicable after we have electronically filed such material with, or furnished it to, the SEC. The contents of our website are not incorporated into this Annual Report on 10-K or in any report or document we file with the SEC. Further, any references to the URL for our website are intended to be inactive textual references only.

ITEM 1A. RISK FACTORS

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. Please see page 4 of this Annual Report on Form 10-K for a discussion of the forward-looking statements that are qualified by these risk factors. If any of the events or circumstances described in the following risk factors actually occurs, our business, operating results and financial condition could be materially adversely affected.

Risks Related to Our Business and Our Industry

Our limited operating history, and changes in our business, make it difficult to evaluate our business and prospects.

We were incorporated in 2008 and, since 2014, have been transforming our business from a largely managed service business to offering platform solutions as well, and, as a result, have only a limited operating history upon which our business and future prospects may be evaluated. Although we experienced substantial revenue growth in our limited history, our rate of revenue growth has been declining, and we have experienced a decline in revenue in fiscal year 2016 compared to fiscal year 2015. We may not be able to slow or reverse this decline, and we may not be able to maintain our current revenue levels. We have encountered and will continue to encounter risks and difficulties frequently experienced by companies in rapidly developing and changing industries, including challenges related to recruiting, integrating and retaining qualified employees; making effective use of our limited resources; achieving market acceptance of our existing and future offerings; competing against companies with greater financial and technical resources; acquiring and retaining advertisers and advertising agency customers; and developing new offerings, either internally or through acquisitions.

As a company in a rapidly evolving industry, our business prospects depend in large part on our ability to:

- develop, offer, sell and provide effective service and support for competitive technology platforms and offerings that meet our advertisers’ and their agencies' needs as they change;
- develop competitive pricing models for our technology and services and manage margin compression in our managed service and platform solutions business;
- build a reputation for superior solutions and create trust and long-term relationships with advertisers and advertising agencies;
- partner with advertising agencies to offer solutions to their customers;
- attract, hire, integrate and retain qualified and motivated employees;
- expand our expertise in technologies required for our offerings, such as our self-service DSP and DMP platform solutions, that involve developing solutions for use directly by customers, including user interface development, user documentation and ongoing customer support and maintenance;
- effectively execute on cost-cutting and other operating efficiency initiatives in order to create more leverage in our business;
- distinguish ourselves from competitors in our industry while at the same time working with those competitors that also offer advertising inventory for our acquisition and placement;
- maintain, expand and develop new relationships with the sources of quality inventory through which we execute our customers’ advertising campaigns, including but not limited to Facebook inventory and premium inventory directly from publishers;
- respond to evolving industry standards, government regulations and customer requirements 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;

- expand our business internationally; and
- obtain additional funding through public or private equity or debt financing.

If we are unable to meet one or more of these objectives or otherwise adequately address the risks and difficulties that we face, our business may suffer, our revenue may decline and we may not be able to achieve further growth or long-term positive profitability or cash flow.

We may experience fluctuations in our operating results, which make our future results difficult to predict and could cause our operating results or future guidance that we issue to fall below our expectations or those of investors or analysts.

Our quarterly and annual operating results have fluctuated in the past. Similarly, we expect our future operating results to fluctuate for the foreseeable future due to a variety of factors, many of which are beyond our control. We have only a few longer term contracts, and we record, invoice and recognize a substantial portion of our revenue on a month-to-month basis; both factors make our business less predictable. Our fluctuating results have in the past and could in the future cause our performance to fall below the expectations of investors and securities analysts, and adversely affect the price of our common stock. Because our business is changing and evolving rapidly, our historical operating results may not be useful for predicting our future operating results. Factors that may increase the volatility of our operating results include the following:

- the addition or loss of customers;
- changes in demand and pricing for our solutions;
- changes in our revenue mix and shifts in media margins related to changes in our sales strategies or product mix that impact our profitability;
- the unpredictable nature of agency relationships;
- the seasonal nature of our customers’ spending on digital advertising campaigns;
- changes in our pricing policies or the pricing policies of our competitors;
- the pricing of advertising inventory or of other third-party services that we require;
- the introduction of new technologies, product or service offerings by our competitors;
- changes in our customers’ advertising budget allocations, agency affiliations, or marketing strategies, which could affect their interest in our solutions;
- changes and uncertainty in the regulatory environment for us or our customers;
- changes in the economic prospects of our customers or the economy generally, which could alter current or prospective customers’ spending priorities, or could increase the time or costs required to complete sales to customers;
- changes in the availability of advertising inventory through real-time advertising exchanges, or in the cost to reach end consumers through digital advertising;
- the rate of our investment in people and related infrastructure;
- the extent to which we expand operations outside of North America;
- changes in our capital expenditures and/or lease obligations as we acquire the computer hardware, equipment, facilities and other assets required to support our business; and
- the cost and potential outcomes of existing and future litigation, including, without limitation, the purported stockholder class action described below under “Risks Related to the Securities Markets and Ownership of our Common Stock—The price of our common stock has been volatile and the value of our common stock has declined substantially since our IPO."

Based upon all of the factors described above and others that we may not anticipate, including those beyond our control, we have a limited ability to forecast our future revenue, costs and expenses and the resulting profit or loss and cash flows. As a result, our actual operating results may from time to time fall below our own estimates or the expectations of investors and analysts. Furthermore, our projected results may from time to time fall below our initial estimates or the expectations of investors and analysts. These situations have occurred several times since we became a public company and resulted in substantial declines in our stock price. See “Risks Related to the Securities Markets and Ownership of our Common Stock—We have failed in the past, and may fail in the future, to meet our publicly announced guidance or other expectations about our business and future operating results. Such past failures have caused, and future failures would likely cause, our stock price to decline,” below.

Our credit agreement contains operating and financial covenants that restrict our business and financing activities and, in some cases, could result in an immediate requirement to repay our outstanding loans.

Borrowings under our credit agreement with certain lenders and Comerica Bank, or "Comerica," as agent for the lenders, are secured by substantially all of our assets, including our intellectual property. (See Note 8 of the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for a detailed description of this agreement.) Our credit agreement also restricts our ability to, among other things:

- 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, including capital expenditures;
- enter into transactions with affiliates; and
- pay off or redeem subordinated indebtedness.

These restrictions are subject to certain exceptions. In addition, our credit agreement requires us to comply with minimum bank-defined EBITDA (as defined in Note 8 of our Consolidated Financial Statements in Part II, Section 8 of this Annual Report on Form 10-K) covenants, maintain minimum cash balances with the lenders and maintain a minimum liquidity ratio, among other requirements, and gives the lenders the right to use future cash collections from accounts receivable directly to reduce the outstanding balance of the revolving credit facility, if the aggregated cash balances on deposit with the lenders and certain other domestic financial institutions fall below $40.0 million. If the lenders were to exercise this right, our ability to pay the costs of our operations, including payroll and vendor costs, would be adversely impacted, and could lead to insolvency or bankruptcy.

The operating and financial restrictions and covenants in the credit agreement, as well as any future financing agreements that we may enter into, could restrict our ability to finance our operations and to engage in, expand or otherwise pursue business activities and strategies and ultimately have a material adverse effect on our business.

We have had to amend the terms and covenants of the credit agreement, and at times failed to comply with similar covenants in the past, including covenants related to permitted indebtedness for a corporate credit card account balance and limitations on our capital expenditures. Although we have been able to obtain a waiver for each such covenant violation in the past or agreed with our lenders to amend the terms to avoid a violation, there is no guarantee that our lenders will amend or waive such violations in the future. We have also amended our credit agreement in the past, including most recently in December 2016, to, among other amendments, change our minimum bank-defined EBITDA covenant to prevent a covenant violation. However, we do not have assurances that our lenders would agree to future amendments. Our ability to comply with these covenants may be affected by events beyond our control, and future breaches of any of these covenants could result in a default under the credit agreement. Future defaults, if not waived, could cause all of the outstanding indebtedness under our credit agreement to become immediately due and payable and would permit the lenders to terminate all commitments to extend further credit and permit Comerica, on behalf of the lenders, to proceed against the collateral in which we granted Comerica a security interest.

14

If we 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. This could materially and adversely affect our liquidity and financial condition and our ability to operate and continue our business as a going concern.
We may require additional capital to support ongoing operations and growth, and such capital might not be available on terms acceptable to us, if at all. This could hamper our growth and adversely affect our business.
We may require additional capital to support operational needs, business growth and to respond to business challenges, including the management of intra-quarter cash flow cyclicality, the need to develop new features or enhance our platform, improve our operating infrastructure or acquire complementary businesses and technologies. In implementing our business strategy, we may decide to, or need to, engage in public or private equity, equity-linked or debt financings to secure additional funds to strengthen our balance sheet, and support our business plans through the end of this year and into 2017. Our failure to obtain capital when needed could limit our operational flexibility and force us to delay, reduce or eliminate our growth plans and technology development.
We may raise funds in equity or debt financings or enter into credit facilities in order to access funds for our capital needs. We cannot be certain that additional capital will be available to us as needed on acceptable terms, or at all. Our 2016 Loan Facility expires in December 2018, following our amendment in February 2017.

On May 10, 2016, we filed an S-3 registration statement, supplemental prospectus, and entered into a sales agreement for "at-the-market" offerings enabling us to sell common shares into the market over time. If we 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. We may not be able to complete equity or debt offerings on terms favorable to us, if at all. If we are unable to obtain capital on terms satisfactory to us when we require it, our ability to support business growth and respond to business challenges could be significantly impaired, and our business could be adversely affected.
We have a history of losses and may not achieve or sustain profitability in the future.
We incurred net losses of $65.7 million, $210.5 million, and $64.3 million and for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, we had an accumulated deficit of $385.0 million. We may not achieve profitability in the foreseeable future, if at all. For example, in 2015 our operating expenses increased more rapidly than our revenue primarily due to non-cash goodwill impairment and amortization and depreciation charges, as well as restructuring expenses related to our reduction in force in April 2015 and exit activities for some of our facilities. We incurred further restructuring expenses in 2016 related to reducing our real estate footprint and reorganizing our workforce.
We sell Platform Solutions in addition to Media Services. Some of these sales may result in the deferral of platform revenues over the term of the subscription. However, our sales costs, including commissions on such sales, will generally be incurred up front, which could result in additional losses as we ramp this business, even though the aggregate revenues from such activities may exceed the associated aggregate costs of acquiring and providing such services over the full course of the term. In addition, Platform Solutions arrangements typically have lower margins compared to Media Services arrangements. Our strategy to focus on a smaller number of high value customers is also impacting our margins. Our Media Services agreements vary and we have entered into agreements with lower fixed media margins with larger Media Services customers. As a result of these developments, we expect our margins to continue to decline.
In order to achieve sustained profitability and positive cash flow, we must change our operational infrastructure and practices. For example, we must manage our expenses to create operating leverage and manage our financial and capital resources more effectively. If we fail to implement the necessary changes to our operations on a timely basis, or if we are unable to implement them effectively or at all, our business may suffer. Our bank covenants require us to

improve our bank-defined EBITDA (as defined in Note 8 of our Consolidated Financial Statements in Part II, Section 8 of this Annual Report on Form 10-K) results materially over the course of fiscal year 2016. If we fail to achieve such improvements, the banks could revoke our loans. Any future losses will continue to impair our liquidity, which could ultimately cause us to become insolvent. Furthermore, our goal to grow our business will require either that we improve our working capital management, by better aligning the time it takes to collect on customer invoices with our vendor payment terms, which are typically shorter, or obtain additional capital to support this working capital requirement. In July and August 2016, we increased our borrowing under the 2016 Loan Facility to $71.5 million fully utilizing the full borrowing capacity available to us under the 2016 Loan Facility. Our intra-quarter cash flows are highly cyclical, and therefore, our intra-quarter cash balances fluctuate and can present significant cash management challenges for us. We cannot provide assurance that we will be successful in addressing these and other challenges we may face in the future.

We have experienced a slowing rate of revenue growth and our revenue will continue to suffer if we do not improve our capabilities to attract key former and potential customers, retain our customers and sell more solutions to these customers.

In the short term, we expect our revenue to continue to be impacted as we continue building our enterprise sales capabilities and as we continue to hire new sales personnel, including senior sales leaders, who require time to become productive. To sustain or increase our revenue longer-term, we must add and retain new customers and encourage longer-term customers to purchase additional offerings from us, including our platform solutions. In 2016, we focused our sales and customer service personnel on attracting new high-value customers and on expanding our relationships with our largest existing customers, with a focus on increasing revenue from our top 50 and 250 customers. As the digital advertising industry matures and as competitors introduce lower cost or differentiated products or services that compete with or are perceived to compete with ours, our ability to sell our solutions to new and existing advertisers based on our offerings, pricing, technology platform and functionality has been and could continue to be challenged. Some advertisers that are repeat users of our Media Services have increased their spending over time. Conversely, some advertisers that are newer to our solution tend to spend less than, and may not return at all, or as frequently as, advertisers that have used our solution for longer periods of time. With long-time advertisers, we may reach or have already reached a point of saturation at which it is challenging to continue to grow our revenue from those advertisers because of their unfamiliarity with the breadth of our product suite, as well as factors beyond our control such as internal limits that advertisers or their agencies may place on the allocation of their advertising budgets to digital media, to particular campaigns, to a particular provider, or for other reasons not known to us. Since 2014, we have been experiencing fluctuations in average customer spend, as well as the loss of, or decline in spend by, some of our larger customers. If we are unable to reverse this trend, continue to attract more new high value customers and obtain additional business from existing customers, our revenue and operating results will continue to be adversely affected.

Our ability to slow or reverse this declining rate of revenue growth will depend in part upon the successful introduction of new offerings (including our ability to cross-sell our full suite of offerings). We operate in a highly competitive market, and there can be no assurance that these new offerings will gain significant levels of market acceptance. In particular, the market for our platform solutions is relatively new. Advertisers may be reluctant to make significant investments in these solutions. The sales cycle for platform solutions can be long and unpredictable and require considerable time and expense. Even if we generate a sale, we incur upfront costs associated with onboarding advertisers to our enterprise platforms, which can be a complex process as we must support a wide range of customer data formats and capabilities, and integrate with a wide range of applications and technology and process infrastructures. We may not recoup our investment if we do not maintain the advertiser relationship over time.

We compete for allocation of advertising budgets with agencies that may prefer to allocate their clients' advertising spend to their own internal agency trading desks or other solutions, reducing our ability to grow or retain revenue from customers represented by agencies even if our solutions are more effective.
Among our principal competitors for our solutions are advertising agencies that operate agency trading desks, either directly or through affiliates. Customers often rely on agencies to direct and allocate their advertising spend for advertising in digital media among various providers. We rely predominately on advertising agencies to purchase our solution on behalf of advertisers, and certain of those agencies or agency holding companies have, or are creating competitive solutions, referred to as agency trading desks. If these agency trading desks are successful in leveraging their relationships with the advertisers, we may be unable to compete for advertisers' budgets even if our solution is more effective. Many agencies that we work with are also owned by large agency holding companies. For various reasons related to the agencies' own priorities or those of their holding companies, they may not recommend our solution, even though it may be more effective, and we may not have the opportunity to demonstrate our value to advertisers. Furthermore, agencies are increasingly involved in helping to select self-service platform providers for the advertisers they represent. This trend has impacted, and may continue to impact, our ability to grow revenue from those advertisers. Since 2014, we have been experiencing declines in revenue from some customers that directed more spend through agency trading desks that did not use our Media Services. Our ability to compete successfully and return to revenue growth will depend in part on our ability to identify opportunities to work collaboratively with agencies and agency trading desks. Even where advertising agencies choose to use or continue using our solutions, they may choose to use our Platform Solutions for their advertiser clients at a lower margin than our Media Services.
We may not be able to compete successfully against current and future competitors because competition in our industry is intense, and our competitors may offer solutions that are perceived by our customers to be more attractive than ours or leverage captive inventory or data to their advantage. These factors could result in declining revenue or the inability to grow our business.
Competition for our advertisers' advertising budgets is intense, as is competition for broader advertising solutions such as data management platforms. We operate in a market that is subject to rapid development and introduction of product and service offerings, changing branding objectives and evolving customer demands, all of which affect our ability to remain competitive. For example, in the past, we experienced a decline in revenue from some customers that adopted competitors' DSP and/or DMP solutions rather than our own similar solutions. We expect competition to increase as the barriers to enter our market are low and consolidation is increasing. Increased competition may force us to charge less for our solutions, or offer pricing models that are less attractive to us and decrease our margins. Our principal competitors for our media buying solutions include traditional advertising networks, and advertising agencies that operate an agency trading desk, either directly or through an affiliate. Competitors for our self-service solutions include other companies that offer self-service DSP and/or DMP solutions, such as Salesforce, Adobe and Oracle (BlueKai), which allow advertisers to purchase inventory directly from advertising exchanges or other third parties and manage and analyze their own consumer data and third party data. Other competitors for our solutions include in-house tools and custom solutions currently used by brand advertisers to manage their customer data and advertising and marketing activities. As our platforms evolve and we introduce new technologies, features and functionality, we may face competition from new sources.
We also compete with services offered through large online portals that have significant brand recognition, such as Yahoo!, Google, AOL, MSN and The Rubicon Project. These large portals have substantial proprietary digital advertising inventory that may provide them with competitive advantages, including far greater access to Internet user data, and the ability to significantly influence pricing for digital advertising inventory. Furthermore, these portals may not offer some of their premium, or even all of their inventory, for sale, but instead, use it in their own captive advertising activities. We also compete for a share of advertisers' total advertising budgets with online search advertising, for which we do not offer a solution, and with traditional advertising media, such as direct mail, broadcast television, radio, cable and print. Some of our competitors have also established reputations for specific services, such as retargeting with dynamic creative, for which we do not have an established market presence. Many current and potential competitors have competitive advantages relative to us, such as longer operating histories, greater name recognition, larger client bases, greater access to advertising inventory on premium websites and significantly greater

financial, technical, sales and marketing resources. Increased competition may result in reduced pricing for our solutions, longer sales cycles or a decrease of our market share, any of which could negatively affect our revenue and future operating results and our ability to grow our business.

Any expense reduction initiatives that we have undertaken or may undertake may not deliver the expected results and these initiatives may adversely affect our business.

In early 2015, we announced that we intended to take measures to move toward profitability and improve our operating leverage, including slowing our headcount growth considerably, managing our expenses more effectively, and minimizing our capital spending requirements. In April 2015 we committed to a plan intended to improve our operational efficiency. This plan included a reduction of approximately 11% of our workforce that was completed during the second quarter of 2015, and other cost reduction measures that extended throughout 2015. Throughout 2016, we have reduced our office space, including downsizing our headquarters location, and moving to smaller office spaces in several locations. In the first quarter of 2017, we committed to a plan to reduce our workforce by approximately 11%, as part of a reorganization to further improve operational efficiency. As we have taken and continue to take actions to better align our operating expenses with our revenue, manage our costs better, and more efficiently manage our business, such actions have resulted and could result in disruptions to our operations and our workforce, and adversely affect our business. In particular, higher voluntary attrition and potential continued attrition across the Company, including in engineering and key finance functions, and the resulting influx of new leaders and other employees, has impacted and may continue to impact our efficiency across the Company as we expend the time and resources necessary to recruit and retain talent, restructure our organizations, and train new employees.

Expense reduction and greater operational efficiency continue to be priorities in 2017. To effectively manage our business and operations with fewer employees, we have spent and may need to continue spending significant resources to further automate our business processes, improve our technology infrastructure, our operational, financial and management controls, and our reporting systems and procedures by, among other things:

- monitoring and updating our technology infrastructure to maintain high performance and the security of our data centers and network;
- enhancing and automating work processes of our customer service and operations teams to ensure that our service professionals can efficiently and effectively support our customers; and
- enhancing our internal controls to ensure timely, accurate and highly efficient billing processes.

These enhancements and improvements have required and will continue to require capital expenditures and allocation of valuable management and employee resources. We expect to continue to actively monitor our operating expenses; however, if we do not fully realize the anticipated benefits of any expense reduction initiatives, including reductions in headcount, our business could be adversely affected. In addition, we cannot be sure that our efforts to manage expenses and improve our operating leverage will be successful. If our operating expenses are higher than we expect or if we do not maintain adequate control of our costs and expenses, our operating results will suffer.

If we fail to make the right investment decisions in our offerings and technology platforms, we may not attract and retain advertisers and advertising agencies and our revenue and results of operations may decline.

We compete for advertisers, which are often represented by advertising agencies, who want to purchase digital media for advertising campaigns and/or invest in platform solutions for the purchase of digital media, data management and/or personalization of web properties. Our industry is subject to rapid changes in standards, technologies, products and service offerings, as well as in advertiser demands and expectations. We continuously need to make decisions regarding which offerings and technology to invest in to meet advertiser demand and evolving industry standards and regulatory requirements. We may make wrong or untimely decisions regarding these investments. If new or existing competitors offer more attractive offerings, we may lose advertisers, or advertisers and their agencies may decrease their spending on our solutions. New advertiser demands, superior competitive offerings or new industry standards could render our existing solutions unattractive, unmarketable or obsolete and require us to make substantial unanticipated changes to our technology platforms or business models. Our failure to adapt to a rapidly changing market or to anticipate advertiser demand could harm our business and our financial performance.

Our entry into the market for our Platform Solutions is relatively new, and if we are not recognized as a technology company that can deliver effective, reliable and secure platform solutions to enterprise clients and agencies, then our prospects and clients may be unwilling to use our solutions and our business will suffer.

As we expand our offerings to include our Platform Solutions for enterprise clients and agencies, we must develop new skills that are critical to delivering such offerings, and invest significantly in training employees to support the business model and the long term enterprise client relationships that we want to maintain and further develop. We must expand our expertise in technologies required for those offerings, and develop a reputation for regularly developing and delivering software updates and new features to enterprise clients. We must continue to develop and provide an easy to use, intuitive user interface for our solutions and provide robust client training programs and professional services to support our clients’ use of our platform. In addition, we must have skilled sales and customer service employees that are capable of working with clients to assess their use of our platform. We must be able to develop and execute product roadmaps for clients to facilitate ongoing software feature development and ensure continued client use of our platform offerings, including the use of our technology for purchasing digital media for advertising and implementing marketing campaigns. We must also provide a secure infrastructure that clients trust to house their customer data, devote significant resources to cyber and physical security, and regularly test, audit, and augment our security protocols and practices.

Because the sales cycle for platform solutions can be long and unpredictable and requires considerable time and expense, and client relationships may take a long time to grow and mature, it may be many quarters or years before we know whether our investment in these solutions will be a profitable business for us. If we do not develop and maintain a good reputation as a platform solutions provider, and we are not successful in generating revenue from these solutions and the resulting enterprise client relationships, then we may not recoup our investments in the these solutions, and our results of operations will be harmed.

We must continue to invest significant time and resources to develop successful strategies for marketing and selling our Predictive Marketing Platform, and to train our marketing and sales personnel on these strategies.

Our Predictive Marketing Platform, which combines our DSP and DMP solutions into a single platform, is a new offering for us that we have developed since we acquired [x+1] and its DMP in September 2014. Our ability to achieve success with this combined platform depends to a great extent on our ability to develop appropriate marketing and sales strategies, which are different from the strategies that our marketing and sales personnel rely on for our other offerings. We must continue to invest time and resources to further refine them and to provide additional training to marketing and sales personnel. If we fail to develop and implement successful marketing and sales strategies for our Predictive Marketing Platform, our revenue will be adversely impacted.

If we do not manage our information technology systems and infrastructure effectively, (i) the quality of our solutions and services and our relationships with our customers may suffer, and/or (ii) our ability to perform essential administrative functions may be impaired. Either or both of these results could have an adverse impact on our business, financial condition and results of operations.

We rely heavily on information technology, or "IT," systems to manage critical customer-related functions such as advertising campaign management and operations, data center operations and data management platform hosting. We must expand, improve and automate these systems to maintain the quality of our solutions going forward and, in particular, to avoid service interruptions, security breaches and slower system performance for our platform solutions. We also depend on IT systems to help us manage essential functions such as revenue recognition, budgeting, forecasting, financial reporting, invoicing, collections and other administrative functions, and we must continue to expand and improve these IT systems as well. Despite the use of IT systems, many of our processes remain manual in nature, and thus we must also continue to manage our employees, operations, finances, research and development and capital investments efficiently. Our productivity and the quality of our solutions may be adversely affected if we do not quickly and effectively integrate and train our new employees on our systems, processes and security protocols, and if we fail to appropriately coordinate across our functional groups and offices. If we do not adapt to meet the evolving challenges or our business, and if we do not effectively and efficiently scale our operations to support our business, then the quality of our solutions may suffer, our IT systems and infrastructure may be more prone to security breaches and service interruptions, and relationships with our customers may be harmed, which, in turn, could have an adverse impact on our financial condition and results of operations.

Our future success depends on the continuing efforts of our executive team, senior managers and other key employees, and on our ability to recruit, hire, train, motivate and retain additional employees at all levels of our workforce.

We promoted E. Randolph Wootton III from chief revenue officer for North America to chief executive officer, or "CEO," in November 2015. Stephen Snyder joined the Company as chief financial officer, "CFO," in November 2016. Over the past years we experienced significant turnover within our executive team. We hired additional senior leaders in 2015 and 2016 including a chief revenue officer, a chief marketing officer, a chief customer officer, managing director of international, senior vice president of engineering, and other sales and business development roles. Our future success depends upon us successfully integrating these leaders into their new roles, as well as our ability to attract and retain additional management team members and other highly skilled employees, including software engineers, analytics and operations employees and sales professionals.

We have open positions on our engineering teams and throughout the Company for which we are seeking qualified applicants, and we have made organizational changes in many functions, including customer service, marketing and engineering. Our future success depends on the swift and effective integration of all new executives and other employees into our business operations and company culture. None of our executives or other key employees has an employment agreement for a specific term, and any of our employees may terminate their employment with us at any time.

The market for talent in our key areas of operations, including California, New York, Chicago and London, is intensely competitive. Our engineering group is primarily based in Redwood City, California, where we face significant competition for talent from large technology companies such as Google, Facebook and LinkedIn. These companies may provide more generous compensation and benefits, more diverse opportunities and better chances for career advancement than we do. Some of these advantages may be more appealing to high-quality candidates and employees than those we have to offer. In addition, the decline in our stock price has created additional challenges related to our ability to compete effectively with respect to equity compensation.

We are investing in a distributed workforce, including a new engineering office in the Czech Republic, which we established in the first quarter of 2017. New employees often require significant training and, in many cases, take significant time 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, and we may lose new employees to our competitors or other companies before we realize the benefit of our investment in recruiting and training them. Moreover, new employees may not be or become as productive as we expect, as we may face challenges in adequately or appropriately integrating them into our workforce and culture, particularly in remote locations. In addition, as we move into new geographies, we will need to attract and recruit skilled employees in those areas. We have limited experience with recruiting in geographies outside of the United States, and may face additional challenges in attracting, integrating and retaining international employees.

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. If we are unable to attract, integrate and retain suitably qualified individuals, our business, financial position and results of operations would be harmed.

Our marketing and sales efforts have required significant investments, which may not yield returns in the foreseeable future, if at all.

We have invested significant resources in our marketing and sales teams to educate the marketplace about the value of our solutions and to sell the solutions to prospective advertisers and advertising agencies. We evolved our marketing strategy in 2015 to place more emphasis on our comprehensive programmatic marketing platform and our Moment-Scoring technology. On the sales side, we often spend substantial time and resources explaining how our solutions can optimize advertising campaigns, and responding to requests for proposals from potential advertisers and their advertising agencies, including developing material specific to the needs of such potential advertisers. Our business depends in part upon the market perception of our solutions and on advertisers' confidence, and the confidence of the advertising agencies that represent those advertisers, that our solutions are superior to other methods of purchasing digital advertising. In order to support our sales teams more effectively in an extremely competitive environment, our marketing efforts must continue to keep pace with the evolution of our business and educate the market about our technology advantages and capabilities. We may not be successful in attracting new advertisers despite our investment in our marketing and sales organizations.

If we do not effectively train and provide tools and technology to support our sales, customer service and operations teams, we may be unable to maintain or increase sales to our existing customers or maintain customer satisfaction, and our business would be adversely affected.

We are substantially dependent on our sales, customer service and operations teams to maintain and increase sales from our existing customers and on our customer service and operations teams to maintain customer satisfaction. Our ability to achieve significant revenue growth will depend, in part, on our success in recruiting, training, integrating and retaining sufficient numbers of sales and customer service and operations personnel to support growth and maintain customer satisfaction, and providing them the tools and technology that they need to efficiently do their jobs and satisfy customer demands. As we expand our direct response and brand offerings and our self-service platforms, our sales teams are also required to spend time learning new offerings and become more effective at cross-selling. Our customer service and operations teams are required to spend time learning to support the new offerings and troubleshooting customer issues. If we cannot provide the tools and training to our teams to support new and repeat customer growth, we will continue to see declines in our revenue retention rate that we have experienced since the beginning of 2014, and fail to maintain satisfactory customer relationships. We require sales and customer service and operations teams to meet the demands of two distinctly different types of customers with different types of offerings; those that purchase managed services from us, and those that invest in our technology as a platform solution. Our sales and customer service and operations teams have been primarily trained and experienced in selling and supporting our managed service solutions to and servicing advertising agencies, which often control advertisers' budgets. Our platform solutions are marketed and sold to agencies, platform customers and other channel partners directly. We are expanding our capabilities in enterprise sales and customer service and operations, and we have invested in existing personnel to sell solutions to advertising agencies, large brand advertisers and channel partners and provide customer support.

Our liquidity could be adversely impacted by adverse conditions in the financial markets.

As of December 31, 2016, we had $84.0 million in cash and cash equivalents. Of this balance, $30.0 million is required to be kept on deposit with our loan facility lenders. We have funds in our operating accounts that are with third party financial institutions that exceed the Federal Deposit Insurance Corporation, or FDIC, insurance limits. These cash balances could be impacted if the underlying financial institutions fail or become subject to other adverse conditions in the financial markets.

Seasonality may cause material fluctuations on our quarterly operating results and cash flows.

Our revenue, operating results, and other key operating and performance metrics vary from quarter to quarter due to the seasonal nature of our advertisers’ spending on digital advertising campaigns. For example, advertisers tend to devote more of their advertising budgets to the fourth calendar quarter to coincide with consumer holiday spending. Moreover, advertising inventory in the fourth quarter may be more expensive due to increased demand for advertising inventory. To the extent seasonal spending becomes more pronounced, seasonality could cause material fluctuations on our revenue, cash flow, operating results and other key operating and performance metrics from period to period.

If the use of 'third party cookies' is rejected by Internet users, or potentially unfavorable "Do Not Track" standards or government regulations are created, our performance could decline and we could lose advertisers and revenue.

We use "cookies" (small text files) to gather important data to help deliver our solution. These cookies are placed through an Internet browser on an Internet user's device and correspond to a data set that we keep on our servers. Our cookies are known as “third party” cookies because we do not have a direct relationship with the Internet user. Our cookies collect pseudonymous information, such as when an Internet user views an ad, clicks on an ad, or visits one of our advertisers' websites. We use these cookies for reasons such as to help us achieve our advertisers' campaign goals, to help us ensure that the same Internet user does not unintentionally see the same advertisement too frequently, to report aggregate information to our advertisers regarding the performance of their advertising campaigns and to detect and prevent fraudulent activity throughout our network of inventory. We also use data from cookies to help us decide whether to bid on, and how much to bid on, an opportunity to place an advertisement in a certain location, at a given time, in front of a particular Internet user. A lack of data associated with cookies may detract from our ability to make decisions about which inventory to purchase for an advertiser’s campaign, and undermine the effectiveness of our solution.

Cookies may easily be deleted or blocked by Internet users. All of the most commonly used Internet browsers (including Chrome, Firefox, Internet Explorer, and Safari) allow Internet users to prevent cookies from being accepted by their browsers. Internet users can also delete cookies from their devices at any time. In addition, the Safari browser blocks third party cookies by default, and other publishers of other browsers may choose to modify their software defaults in this way in the future. Unless such default settings in browsers are altered by Internet users, we will be able to set fewer of our cookies on users' devices, which could adversely affect our business. In addition, companies such as Google have publicly disclosed their intention to move away from cookies to other forms of persistent, unique identifiers, or IDs, to indicate Internet users in the bidding process on advertising exchanges. This could have a negative impact on our ability to locate the same anonymous user across different web properties, and reduce the effectiveness of our solution.

As the use of cookies has received ongoing media attention over the past several years, some government regulators and privacy advocates have suggested creating a "Do Not Track" standard that would allow Internet users to express a preference, independent of cookie settings in their web browser, not to have their website browsing history recorded. All the major Internet browsers have implemented some version of a "Do Not Track" setting. In the past, Microsoft’s Internet Explorer 10 included a "Do Not Track" setting that was selected "on" by default. However, there is no definition of "tracking," no consensus regarding what message is conveyed by a "Do Not Track" setting and no industry standards regarding how to respond to a "Do Not Track" preference. It is possible that we could face competing policy standards, or standards that put our business model at a competitive disadvantage to other companies that collect data from Internet users and may not be required to adhere to the same Do Not Track policy standard that we must adhere to, standards that reduce the effectiveness of our solution, or standards that require us to make costly changes to our solution. The Federal Trade Commission, or FTC, has stated that it will pursue a legislative solution if the industry cannot agree upon a standard. The "Do-Not-Track Online Act of 2015" was introduced in the United States Senate in December 2015. In October 2016, the European Commission suggested that a "Do Not Track" setting could provide a method for regulatory compliance in the European Union. If a "Do Not Track" web browser setting is adopted by many Internet users, and the standard either imposed by state or federal legislation, or agreed upon by standard setting groups, requires us to recognize a

"Do Not Track" signal and prohibits us from using non-personal data as we currently do, then that could hinder growth of advertising and content production on the web generally, and limit the quality and amount of data we are able to store and use, which would cause us to change our business practices and adversely affect our business.
In the European Union, or EU, Directive 2009/136/EC, commonly referred to as the "Cookie Directive," directs EU member states to ensure that accessing information on an Internet user's computer, such as through a cookie, is allowed only if the Internet user has given his or her consent. We may not be able to develop or implement additional tools that compensate for the lack of data associated with cookies. Moreover, even if we are able to do so, such additional tools may be subject to further regulation, time consuming to develop or costly to obtain, and less effective than our current use of cookies. The General Data Protection Regulation, which was ratified in December 2015 and adopted by the Council of Europe and the European Parliament in April 2016, is being readied for implementation in the European Union. The General Data Protection Regulation is an EU-wide regulation, which would be enforced in all member states, which could restrict how data is collected in the EU, what type of user consent must be obtained prior to data collection, and other rules related to the collection, storage and usage of data gathered from EU citizens. In January of 2017, the European Commission published a draft of an ePrivacy Regulation which includes additional rules for the placement of cookies and other identifiers on users' devices and the collection of personal information from citizens of the European Union. If enacted into law, possible new rules regarding data collection could limit or change the way we collect information, and could have a negative impact on our ability to optimize our clients' advertising campaigns.
Ad blocking technology can limit our access to advertising inventory and our ability to reach the intended recipients of the ads we serve. If the use of ad-blocking technology becomes more prevalent, the performance of our campaigns could decline, we could lose advertisers, and our revenue, costs and other results of operations could be negatively impacted.

In order to serve advertisements to consumers on behalf of our customers, we require access to digital inventory. Some consumers download and use "ad-blocking" software, which can prevent web browsers (for example, Firefox, Google Chrome and others) from interacting with or downloading advertising, or that can prevent ads from being displayed once the advertising is served. If the use of ad blocking software and technology becomes more prevalent, it could hamper our ability to optimally serve advertisements for marketing campaigns, and our business could be harmed. In addition, it could limit the amount of free, advertising-supported content available to consumers online, or otherwise restrict our access to available inventory and could drive up the price of available inventory, which could increase the media costs we pay. Also, some companies that distribute ad blocking software make money by charging companies like ours a fee to serve advertising to consumers that have installed their "ad blocking" software. We currently do not pay fees to such companies because we do not consider those consumers receptive to advertising; however, if we did pay such fees, our costs would increase. An increase in media costs would affect our total operating cost and margins and ultimately our results of operations. Finally, the mere existence of ad blockers, regardless of their effectiveness, may generate concern regarding the health of the digital advertising industry, which could impact the value of companies in the industry generally.

Our international expansion subjects us to additional costs and risks and may not yield returns, including anticipated revenue growth, in the foreseeable future, and our continued expansion internationally may not be successful.
Our significant investment in international expansion subjects us to many challenges associated with supporting a growing business across a multitude of cultures, customs, monetary, legal and regulatory systems and commercial infrastructures. We have a limited operating history outside of the United States, and our ability to manage our business and conduct our operations internationally requires considerable attention and resources. We began operations in the United Kingdom in 2011. Our UK subsidiary has employees in the United Kingdom, France, Italy, Spain, Sweden and Australia. We established subsidiaries in Germany and Canada in 2013 and in Brazil in 2014 (although we closed our office in Brazil in 2016 and we intend to service customers in that market through our other offices and a reseller relationship going forward). In addition, in 2012, we licensed a third party to make our solution available in Japan. We expect to significantly expand our international operations in the future.

Our international expansion and the integration of international operations present challenges and risks to our business and require significant attention from our management, finance, analytics, operations, sales and engineering teams to support advertising campaigns abroad. For example, as a direct result of our relationship with our Japan licensee, we have undertaken engineering and other work to support campaigns for Japanese advertisers and localize our technology platform for language, currency and time zone, and have made substantial investments to train our Japan licensee's sales team to sell our solution in Japan. Moreover, our Japan licensee is a wholly-owned subsidiary of a large advertising agency holding company, which has other subsidiaries that may offer services that compete with us. As a result, there is a risk that conflicts of interest may arise that could reduce our ability to gain market share in the Japanese market. Compliance with complex foreign and U.S. laws and regulations that apply to our international operations increases our cost of doing business abroad, could interfere with our ability to offer our solutions competitively to advertisers and advertising agencies in one or more countries and expose us or our employees to fines and penalties. In some cases, our advertisers might impose additional requirements on our business in efforts to comply with their interpretation of their own or our legal obligations. These requirements might differ significantly from the requirements applicable to our business in the United States and could require engineering and other costly resources to accommodate. Laws and regulations that could impact us include but are not limited to tax laws, employment laws, data privacy regulations, U.S. laws such as the Foreign Corrupt Practices Act and local laws prohibiting corrupt payments to governmental officials and private entities, such as the U.K. Bribery Act. Violations of these laws and regulations could result in monetary damages, criminal sanctions against us, our officers, or our employees, and prohibitions on the conduct of our business. We will likely incur significant operating expenses as a result of our international expansion, and it may not be as successful as we anticipate. Our international business also subjects us to the impact of global and regional recessions and economic and political instability, differing regulatory requirements, costs and difficulties in managing a distributed workforce, potentially adverse tax consequences in the United States and abroad, fluctuations in foreign currency exchange rates and restrictions on the repatriation of funds to the United States. Our failure to manage these risks and challenges successfully could materially and adversely affect our business, financial condition and results of operations.

Our solutions are primarily dependent on advertisers purchasing display advertising. A decrease in the use of display advertising, would harm our business, growth prospects, financial condition and results of operations.

Historically, our customers have predominantly purchased our solution for display advertising. We expect that display advertising will continue to be a significant channel used by our customers. Should our customers lose confidence in the value or effectiveness of display advertising, the demand for our display solution could decline.

If we fail to maintain adequate security and supporting infrastructure as we scale our systems, we may experience outages and disruptions of our services, and we may be in breach of our security obligations to our platform customers, advertising exchanges, or other suppliers. Any of these occurrences could harm our brand and reputation; result in loss of customer information and related indemnity obligations and other liabilities; and negatively impact our revenue and results of operations.

As we grow our business, we expect to continue to invest in technology services, hardware and software, including data centers, network services, storage, and database technologies. Creating the appropriate support for our technology platforms, including big data and computational infrastructure, is expensive and complex, and our execution could result in inefficiencies or operational failures and increased vulnerability to cyber-attacks. We make representations to our customers, advertising exchanges and other suppliers, regarding our security policies and practices, and often are subject to their terms and conditions. We have in the past experienced customers on our platform violating our security policies through the distribution of malware or other policy violations. If we do not adequately implement and enforce these security policies to the satisfaction of our customers, advertising exchanges or other business partners, this could result in a loss of customer or supplier confidence, damage to our reputation and a loss of business. Further, security breaches could not only diminish the quality of our services and our performance for advertisers; they could also be a violation of security obligations to our platform customers that are designed to protect the data that we collect, store and transmit for them. Cyber-attacks could include denial-of-service attacks impacting service availability (including the ability to deliver ads) and reliability; the exploitation of software vulnerabilities in Internet facing applications; social engineering of system administrators; or the introduction of computer viruses or malware into our systems. Cyber-attacks of increasing sophistication may be difficult to detect and could result in the theft of our intellectual property, our data and/or our customers' data, or the distribution of malicious software. In addition, we are vulnerable to unintentional errors as well as malicious actions by persons with authorized access to our systems that exceed the scope of their access rights, or unintentionally or intentionally alter parameters or otherwise interfere with the intended operations of our platforms. The steps we take to increase the reliability, integrity and security of our systems may be expensive and may not prevent system failures or unintended vulnerabilities resulting from the increasing number of persons with access to our systems, complex interactions within our technology platforms and the increasing number of connections with the technology of customers, third party partners and vendors. Operational errors or failures or successful cyber-attacks could result in damage to our reputation and loss of current and new advertisers and other business partners, as well as exposure to indemnity claims and other liability to our platform solution customers and other business partners, which could harm our business. In addition, we could be adversely impacted by outages and disruptions in the online platforms of our key business partners, such as the real-time advertising exchanges, who we rely upon for access to inventory.

We typically do not have long-term commitments from our advertisers, and we may not be able to retain advertisers or attract new advertisers that provide us with revenue that is comparable to the revenue generated by any advertisers we may lose.

Most of the advertisers that use our solution do business with us by placing insertion orders for particular advertising campaigns. If we perform well on a particular campaign, then the advertiser, or most often, the advertising agency representing the advertiser, may place new insertion orders with us for additional advertising campaigns. We rarely have any commitment from an advertiser beyond the campaign governed by a particular insertion order. We use the Interactive Advertising Bureau, or IAB, standard terms and conditions, pursuant to which our insertion orders may also be canceled by advertisers or their advertising agencies prior to the completion of the campaign without penalty. As a result, our success is dependent upon our ability to outperform our competitors and win repeat business from existing advertisers, while continually expanding the number of advertisers for whom we provide services. In addition, it is relatively easy for advertisers and the advertising agencies that represent them to seek an alternative provider for their advertising campaigns because there are no significant switching costs. Agencies, with which we do the majority of our business, often have relationships with many different providers, each of which may be running portions of the same advertising campaign. Because we generally do not have long-term contracts, it is difficult for us to accurately predict future revenue streams. We cannot provide assurance that our current advertisers will continue to use our solution, or that we will be able to replace departing advertisers with new advertisers that provide us with comparable revenue.

The sales cycle for our platform solutions can be long and unpredictable and requires considerable time and expense before winning a sale or not; this can make it difficult to predict when, if at all, we will obtain new platform customers and when we will generate revenue from those customers.

The sales cycle for our enterprise business from initial contact with a sales prospect to contract execution and technology implementation, typically takes a significant amount of time and is difficult to predict. The sales cycle in some cases can take up to twelve months or more. Our sales efforts involve educating our customers about the use, technical capabilities and benefits of our platform. Some of our customers undertake a significant evaluation process that frequently involves not only our platform but also the offerings of our competitors. This process is costly and time-consuming. As a result, it is difficult to predict if and when we will obtain new customers and begin generating revenue from these new customers. Because of the long sales cycle, we may incur significant expenses before we have an opportunity to win the sale and execute a definitive agreement with a prospective customer and even more time before we are able to generate any revenue from any agreement. We have no assurance that the substantial time and money spent on our sales efforts will generate significant revenue, or that the customer engagement will ultimately be profitable. If conditions in the marketplace generally or with a specific prospective customer change negatively, it is possible that no definitive agreement will be executed, and we will be unable to recover any of these expenses.

If we serve our advertisers' advertisements on undesirable websites or fail to detect fraud (including bot traffic), our reputation will suffer, which would harm our brand and reputation and negatively impact our business, financial condition and results of operations.

Our business depends in part on providing our advertisers with a service that they trust. We have contractual commitments to take commercially reasonable measures to prevent advertisers' advertisements from appearing on undesirable websites or on certain websites that they identify, and we use a combination of proprietary technology and third-party services to help us meet those commitments. We use third party technology, and our own proprietary technology, to detect suspected invalid bot traffic, as well as click fraud, which is an automated computer-generated click on an advertisement rather than a click by a human. In 2014 there was a significant amount of negative publicity about fraud and bot traffic within our industry, including negative publicity directed at us. As a result, our abilities to both combat bot traffic and to communicate proactively about our capabilities in this area have become increasingly important. In addition, we use proprietary technology to block inventory that we suspect to be fraudulent, including "tool bar" inventory, which is inventory that appears within an application, often called a "tool bar," and that overlays a website and displaces any advertising that would otherwise be displayed on that website. Preventing and combating fraud, which is an industry-wide issue, requires constant vigilance, and we may not always be successful in our efforts to do so or in our efforts to address negative press on the topic.

If we serve advertising on inventory that is objectionable to our advertisers or fraudulent, we may lose the trust of our advertisers, which would harm our brand and reputation and negatively impact our business, financial condition and results of operations. We may also purchase inventory inadvertently that proves to be unacceptable for advertising campaigns, in which case we are responsible for the media cost and cannot bill that cost to any campaign. If we buy substantial volumes of unusable inventory, this could negatively impact our results of operations.

If our access to quality advertising inventory is diminished or if we fail to acquire new advertising inventory, our revenue could decline and our growth could be impeded.

We must maintain a consistent supply of attractive advertising inventory, meaning the digital space on which we place advertising impressions, including websites, proprietary social networks, such as Facebook, and mobile applications. Our success depends on our ability to secure quality inventory on reasonable terms across a broad range of advertising networks and exchanges and premium publishers, including real-time advertising exchanges, such as Google’s DoubleClick Ad Exchange or AppNexus; suppliers of video and mobile inventory, including premium publishers with which we may seek direct relationships; and inventory available on social media platforms through application program interfaces, or APIs, including Facebook.

The amount, quality and cost of inventory available to us can change at any time. Our suppliers are not bound by long-term contracts, and we purchase inventory subject to their terms and conditions. As a result, we cannot provide any assurance that we will have access to a consistent supply of quality inventory through real-time advertising exchanges or other relationships. Moreover, the number of competing intermediaries that purchase advertising inventory from real-time advertising exchanges and other digital advertising suppliers continues to increase, while the number of suppliers may decline due to consolidation trends in the industry; both of these factors could put upward pressure on inventory costs. If we are unable to compete favorably for advertising inventory available on real-time advertising exchanges and other advertising inventory, or if real-time advertising exchanges or other suppliers decide not to make their advertising inventory available to us for violations of their terms and conditions or otherwise, we may not be able to place advertisements at competitive rates or find alternative sources of inventory with comparable traffic patterns and consumer demographics in a timely manner. Furthermore, the inventory that we access through real-time advertising exchanges may be of low quality or misrepresented to us, despite attempts by us and our suppliers to prevent fraud and conduct quality assurance checks. We may also seek to acquire access to premium inventory directly from publishers for display, mobile and video impressions. Other companies, including large integrated companies that own or have exclusive relationships with publishers, ad exchanges and ad networks, may compete with us and restrict our access to media inventory from their wholly-owned properties or other publishers. Suppliers control the bidding process for the inventory they supply, and their processes may not always work in our favor. For example, suppliers may place restrictions on our use of their inventory, including restrictions that prohibit the placement of advertisements on behalf of certain advertisers. In 2015 Facebook eliminated our access to the Facebook exchange platform, or FBX. This required us to adapt our offering in order to continue to access advertising inventory from Facebook but our access does not appear to be as effective as direct access to FBX. Google also announced changes to YouTube video inventory availability beginning in 2016 that eliminated our access to video inventory on YouTube through real-time bidding exchanges.

We may not win the right to deliver advertising from the inventory that we select and may not be able to replace inventory that is no longer made available to us.

If we are unable to maintain a consistent supply of quality inventory for any reason, our business, brand and reputation, advertiser retention and loyalty, financial condition and results of operations would be harmed.

Currently, our social media offering is almost entirely dependent on access to Facebook's inventory. We no longer have access to FBX inventory and now access Facebook inventory through APIs. If our access to quality inventory in social media (including through Facebook) is diminished or if we fail to acquire new advertising inventory in social media, our growth could be impeded and our revenue could decline.

Currently, our social media offering is almost entirely limited to Facebook's platform. As a result, our ability to grow revenue in the social channel is directly tied to the availability of Facebook ad inventory. We historically accessed Facebook inventory through FBX, which was launched in the second half of 2012. Since April 2015, we no longer have access to Facebook's FBX platform, though Facebook allows other companies in our industry to purchase inventory through the FBX platform. This could put us at a competitive disadvantage. We instead access Facebook inventory (including Facebook mobile and video inventory) through an application program interface, or API. If we are unable to compete favorably for advertising inventory on Facebook through the API, our social media offering may not be successful. Also, we cannot provide assurance that Facebook will continue to make its advertising inventory available to us upon reasonable terms or at all, and we may not be able to replace the FBX advertising inventory with inventory that meets our advertisers' specific goals with respect to social media. In addition, advertisers may prefer to work with companies that have access to FBX inventory in addition to the Facebook APIs, have access to advertising opportunities on social media platforms other than Facebook or that have a longer history of integration with social media platforms. If we are unable to run advertising campaigns on Facebook, integrate with social media platforms that may become more available and/or more popular in the future or otherwise find alternative sources of quality social media inventory, our business could be harmed.

If mobile connected devices, their operating systems or content distribution channels, including those controlled by our competitors, develop in ways that prevent our advertising campaigns from being delivered to their users, our ability to grow our business will be impaired.

There is rapid growth in content consumption on mobile devices. Our success in the mobile channel depends on our ability to access mobile inventory from suppliers, which may also be competitors, on reasonable terms. These suppliers may decide to offer their own solutions and exclude us from reaching quality inventory that they control. Our success also depends upon the ability of our technology platform to integrate with mobile inventory suppliers and provide advertising for most mobile connected devices, as well as the major operating systems that run on them and the thousands of applications that are downloaded onto them.

The design of mobile devices and operating systems is controlled by third parties with whom we do not have any formal relationships. These parties frequently introduce new devices, and from time to time they may introduce new operating systems or modify existing ones. Network carriers may also impact the ability to access specified content on mobile devices. If our solution was unable to work on these devices or operating systems, either because of technological constraints or because an operating system or application developer, device maker or carrier wished to impair, or inadvertently impaired, our ability to purchase inventory and provide advertisements, our ability to generate revenue could be significantly harmed. Precise location data, gathered from mobile devices, is one important factor in running successful mobile advertising campaigns for our advertisers. If the rules for how precise location is gathered and used change, it could adversely affect our ability to optimize mobile advertising campaigns for our advertisers.

Certain self-regulatory organizations of which we are a part released mobile-specific privacy principles that became effective in September 2015. If we fail to comply with these principles, or if we must modify our business practices in a way that reduces our ability to provide quality service to clients, it could affect our ability to generate new mobile channel business.

Errors or failures in our software and systems could adversely affect our operating results and growth prospects.

We depend upon the sustained and uninterrupted performance of our technology platforms to operate and execute thousands of campaigns at any given time; manage our inventory supply (including inventory quality controls); bid on inventory for each campaign; serve or direct a third party to serve advertising; collect, process and interpret data to optimize campaign performance in real time; and provide billing information to our financial systems. If our technology platforms cannot scale to meet demand, or if there are errors in our execution of any of these functions on our platforms, then our business could be harmed. Because our software is complex, undetected errors and failures may occur, especially when new versions or updates are made. We do not have the capability to test new releases or updates to our code on a small subset of campaigns, which means that bugs or errors in code could impact all campaigns on our platforms. 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, we have experienced failures in our bidding system to recognize or respond to budget restrictions for campaigns, resulting in overspending on media, and we may in the future have failures in our systems that cause us to buy more media than our advertisers are contractually obligated to pay for, which could be costly and harm our operating results. Errors or failures in our software could also result in negative publicity, damage to our brand and 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. In such an event, we may be required or choose to expend additional resources to help mitigate any problems resulting from errors in our software. In addition, many of our customers use third-party services to measure campaign results, such as ad delivery, viewability, and fraud detection, and the accuracy of these services may differ. There may be discrepancies between our measurements and the measurements of these third parties which make it challenging for us to deliver on our advertisers' goals as measured in these different ways. We may make errors in the measurement of our campaigns causing discrepancies with our advertisers' measurements leading to a lack of confidence in us or the need for advertiser "make-goods," the standard credits given to advertisers for campaigns that may have not been delivered properly. These campaign measurement issues add complexity, cost, and risks associated with performance and quality to some of the campaigns we deliver. Material defects or errors in our enterprise platform, including our DMP solution, could also result in unanticipated costs and harm to our reputation. The software systems underlying the platform solutions are inherently complex and may contain errors that could cause disruption in availability and other performance issues. Such performance issues could result in customers making warranty or other claims against us. 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, any of which would adversely impact our reputation as well as our financial position, results of operations and growth prospects.

As customers increase usage of our platform solutions, we will need to continually improve our hosting infrastructure.

We expect our platform solutions to continue to add customers, transactions and data that our hosting infrastructure will be required to support. We seek to maintain sufficient excess capacity in the hosting infrastructure to meet the needs of all of our platform customers. We also seek to maintain excess capacity to facilitate the increase in new customers and transactions. For example, if we secure a large customer or a group of platform customers that require significant amounts of bandwidth or storage, we may need to increase bandwidth, storage, power or other elements of our application architecture and our infrastructure, and our existing systems may not be able to scale in a manner satisfactory to our existing or prospective customers. As use of the platforms grows, we will need to devote additional resources to improving our application architecture and our infrastructure in order to maintain the performance of our platform solutions. We may need to incur additional costs to upgrade or expand our computer systems and architecture in order to accommodate increased or expected increases in demand, and also need to be able to replace hardware components as they age. These costs could impact our results of operations.

Our business prospects depend, in part, on the success of our strategic relationships with third parties, including ready access to hardware in key locations to facilitate the delivery of our solution and reliable management of Internet traffic.

We anticipate that we will continue to depend on various third-party relationships in order to grow our business. We continue to pursue additional relationships with third parties, such as technology and content providers, real-time advertising exchanges, social media companies, data and market research companies, publishers, co-location facilities and other strategic partners. Identifying, negotiating and documenting relationships with third parties requires significant time and resources as does integrating third-party data and services. Our agreements with channel partners and providers of technology, computer hardware, co-location facilities, content and consulting services and real-time advertising exchanges are typically non-exclusive, do not prohibit them from working with our competitors or from offering competing services and do not typically have minimum purchase commitments. Our competitors may be effective in providing incentives to third parties to favor their products or services over ours or to otherwise prevent or reduce purchases of our solutions. In addition, these third parties may not perform as expected under our agreements with them, and we may have disagreements or disputes with such third parties, which could negatively affect our brand and reputation.

In particular, our business depends on our ability to source computer hardware, including servers built to our specifications, and the ability to locate those servers and related hardware in co-location facilities in the most desirable locations to facilitate the timely delivery of our services. Disruptions in the services provided at co-location facilities that we rely upon can degrade the level of services that we can provide, which could harm our business. We also rely on our integration with many third-party technology providers to execute our business on a daily basis. We must efficiently direct a large amount of network traffic to and from our servers to consider tens of billions of bid requests per day, and each bid typically must take place in approximately 100 milliseconds. We rely on a third-party domain name service, or DNS, to direct traffic to our closest data center for efficient processing. If our DNS provider experiences disruptions or performance problems, this could result in inefficient balancing of traffic across our servers as well as impairment or prevention of web browser connectivity to our site, which could harm our business.

Our solutions rely on third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our solutions.

Our technology platforms, including our computational infrastructure, rely on 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 less development effort and time and ultimately put us at a competitive disadvantage.

Although we monitor our use of open source software to avoid subjecting our products to conditions we do not intend, the terms of many open source licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our services. 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 our platforms on terms that are not economically feasible, to re-engineer our platforms 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, any of which could adversely affect our business, financial condition and results of operations.

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

We have committed to complying with the Network Advertising Initiative’s Code of Conduct and the Digital Advertising Alliance’s Self-Regulatory Principles for Online Behavioral Advertising in the United States, as well as similar self-regulatory principles in Europe adopted by the Interactive Advertising Bureau—Europe and the European

Digital Advertising Alliance and the Digital Advertising Alliance of Canada in Canada. Our efforts to comply with these principles include offering Internet users notice and transparency when advertising is served to them based, in part, on web browsing data history. We also offer Internet users the ability to opt out of receiving interest-based advertisements based on historical data that we have collected. However, we have made mistakes in our implementation of these guidelines in the past, and if we make mistakes 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 could be subject to negative publicity, government investigation, government or private litigation, or investigation by self-regulatory bodies or other accountability groups. Any such action against us could be costly and time consuming, require us to change our business practices, cause us to divert management's attention and our resources and be damaging to our reputation and our business.

Our corporate culture has contributed to our success. If we cannot maintain our culture as the size of our employee base fluctuates, we could lose the innovation, creativity and teamwork fostered by our culture, and our business could be harmed.

We had 851 employees (665 in the United States and 186 employees overseas) as of December 31, 2016, compared with 954 employees (755 and 199 employees in the United States and overseas, respectively), as of December 31, 2015. We have experienced layoffs, and reorganizations of teams and have added new roles, backfilled roles, and added a substantial number of new employees, which can make it difficult to effectively maintain our corporate culture. We believe our corporate culture has been a critical component of our success as we believe it fosters innovation, teamwork, and focus on customers and execution, while facilitating knowledge sharing across our organization. As we change, we may find it difficult to preserve our corporate culture, which could reduce our ability to innovate and operate effectively. In turn, the failure to preserve our culture could negatively affect our ability to attract, recruit, integrate and retain employees and effectively execute our business strategy.

We rely predominately on advertising agencies to purchase our solution on behalf of advertisers, and we incur the cost of an advertising campaign before we bill for services which can cause cash management challenges. Such agencies may have or develop high-risk credit profiles, which may result in credit risk to us.

We must consider the effect of credit risk in transactions with agencies or other third parties and advertisers. A substantial portion of our business is sourced through advertising agencies, and we contract with these agencies as an agent for a disclosed principal, which is the advertiser. Typically, the advertising agency pays for our services once it has received payment from the advertiser for our services. Our contracts typically provide that if the advertiser does not pay the agency, the agency is not liable to us, and we must seek payment solely from the advertiser. Contracting with these agencies, which in certain cases have or may develop high-risk credit profiles, subjects us to greater credit risk than where we contract with advertisers directly. This credit risk may vary depending on the nature of an advertising agency's aggregated advertiser base. As of December 31, 2016, two agency holding companies, and one single advertiser, accounted for 10% of more of accounts receivable. There can be no assurances that we will not experience additional bad debt expense 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. Even if we are not paid, we are still obligated to pay for the media we have purchased for the advertising campaign, and as a consequence, our results of operations and financial condition could be adversely impacted.

Our contracts with advertising exchanges and other suppliers typically contain industry standard payment terms which are typically shorter than our corresponding payment terms with customers. Our intra-quarter cash flows are highly cyclical, and therefore, our intra-quarter cash balances fluctuate and can present significant cash management challenges for us potentially triggering our lenders' rights under the terms of our credit agreement to use future cash collections from accounts receivable directly to reduce our outstanding balance under our revolving credit facility.

Fluctuations in the exchange rates of foreign currencies have resulted in, and could in the future result in currency transaction losses that negatively impact our financial results.

We currently have foreign sales primarily denominated in British pounds, euros, Japanese yen and Canadian dollars and may, in the future, have sales denominated in the currencies of additional countries in which we establish or have established sales offices. In addition, we incur a portion of our operating expenses in British pounds, euros, Canadian dollars and Hong Kong dollars. We expect international sales to become an increasingly important part of our business. Any adverse fluctuation in the exchange rates of these foreign currencies could negatively impact our business, financial condition and results of operations. We have not previously engaged in foreign currency hedging. If we decide to attempt to hedge our foreign currency exposure, we may not be able to hedge effectively due to lack of experience, unreasonable costs or illiquid markets. In addition, those activities may be limited in the protection they provide us from foreign currency fluctuations and can themselves result in losses. The recent appreciation of the U.S. dollar has caused a decline in the U.S. dollar value of revenue billed in foreign currencies, and we expect this negative impact on revenue and net loss may continue.

Legislation and regulation of online businesses, including privacy and data protection regimes, could create unexpected costs, subject us to enforcement actions for compliance failures, or cause us to change our technology platform or business model, which could have a material adverse effect on our business.

Government regulation could increase the costs of doing business online. U.S. and foreign governments have enacted or are considering legislation related to online advertising and we expect to see an increase in legislation and regulation related to advertising online, the use of geo-location data to inform advertising, the collection and use of anonymous Internet user data and unique device identifiers, such as IP address or unique mobile device identifiers, and other data protection and privacy regulation. Recent revelations about bulk online data collection by the National Security Agency, and news articles suggesting that the National Security Agency may gather data from cookies placed by Internet advertisers to deliver interest-based advertising, may further interest governments in legislation regulating data collection by commercial entities, such as advertisers and publishers and technology companies that serve the advertising industry. Such legislation could affect the costs of doing business online, and could reduce the demand for our solutions or otherwise harm our business, financial condition and results of operations. For example, a wide variety of provincial, state, national and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data. While we have not collected data that is traditionally considered personal data, such as name, email address, address, phone numbers, social security numbers, credit card numbers, financial or health data, we typically do collect and store IP addresses and other device identifiers, that are or may be considered personal data in some jurisdictions or otherwise may be the subject of legislation or regulation.

Evolving and changing definitions of personal data, within the EU, the United States and elsewhere, especially relating to classification of IP addresses, machine or device identifiers, pseudonymous identifiers, location data and other information, have in the past and could in the future, cause us to change our business practices, or limit or inhibit our ability to operate or expand our business. Data protection and privacy-related laws and regulations are evolving and could result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. The referendum held in June 2016 by the United Kingdom in which voters approved an exit from the European Union, commonly referred to as “Brexit,” could also lead to further legislative and regulatory changes. We use anonymous and pseudonymous data to buy media for, target and effectively optimize our clients' marketing campaigns. We do not knowingly collect personally identifiable information (PII), allow our clients to send us PII or store PII in our platform. It is possible that the definition of PII that government regulatory bodies operate under may be modified or expanded in markets where we do business. If this occurs, and if we can no longer collect or use specific types of data in markets where we previously had access to it, the performance of our clients' marketing campaigns may suffer and our ability to efficiently and cost-effectively purchase media may be adversely affected. These possible changes could impact revenue and other results of operations.

We must comply with government laws and regulations regarding the collection and use of certain kinds and classifications of data, such as the Children's Online Privacy Protection Act and the Health Insurance Portability and Accountability Act. Failure to comply with such government regulations could result in fines, penalties and negative press for us.

While we take measures to protect the security of information that we collect, use and disclose in the operation of our business, and to offer certain privacy protections with respect to that information, our measures may not always be effective. In addition, while we take steps to avoid collecting personally identifiable information about consumers, we may inadvertently receive this information from advertisers or advertising agencies or through the process of delivering advertising. Our failure to comply with applicable laws and regulations, or to protect personal data, 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, any of which could have a material adverse impact on our business, financial condition and results of operations. Even the perception of privacy concerns, whether or not valid, could harm our reputation and inhibit adoption of our solutions by current and future advertisers and advertising agencies.

In 2016, the Department of Commerce and the European Union completed the negotiation of the "Privacy Shield" framework, which allows US-based companies to transfer personal data about European citizens from the EU to the United States, after the US-based company has certified compliance with the "Privacy Shield" framework with the US Department of Commerce. This "Privacy Shield" framework replaces a previous framework, which was called "Safe Harbor". When companies certify that they are compliant with "Privacy Shield", they are reporting that they comply with specific obligations and practices detailed in the framework. We are a "Privacy Shield" certified company. If it were to be determined that we were not complying with our obligations under the "Privacy Shield" framework, and we lost our "Privacy Shield" certification from the Department of Commerce, it could result in a reluctance of our clients to do business with us, or the loss of existing business.

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

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop under the intellectual property laws of the United States, so that we can prevent others from using our inventions and proprietary information. If we fail to protect our intellectual property rights adequately, our competitors might gain access to our technology, and our business could be adversely affected. We rely on trademark, copyright, trade secret and patent 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 a small number of pending patent applications, valid patents may not be issued from our pending applications, and the claims eventually allowed on any patents 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 and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Additional uncertainty may result from changes to intellectual property legislation enacted in the United States, including the recent America Invents Act, and other national governments and from interpretations of the intellectual property laws of the United States and other countries by applicable courts and agencies. 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. We generally enter into confidentiality and/or license agreements with our employees, consultants, vendors and advertisers, and generally limit access to and distribution of our proprietary information. However, we cannot provide assurance that any steps taken by us will prevent misappropriation of our technology and proprietary information. Policing unauthorized use of our technology is difficult. 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. From time to time, legal action by us may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement. Such litigation could result in substantial costs and the diversion of limited resources and could negatively affect our business, financial condition and results of operations. If we are unable to protect our proprietary rights (including aspects of our technology platform), 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 intellectual property.

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

Third parties may assert claims of infringement of intellectual property rights in proprietary technology against us or against our advertisers for which we may be liable or have an indemnification obligation. We may be more at risk of infringement claims when we offer platform solutions used directly by our clients because our technology is more accessible to potential claimants, and also because through the [x+1] acquisition we acquired a substantial amount of additional technology and intellectual property. Any claim of infringement by a third party, even those without merit, could cause us to incur substantial costs defending against the claim and could distract our management from operating our business.

Although third parties may offer a license to their technology, 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, financial condition and results of operations 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 licensed to us. Alternatively, we may be required to develop non-infringing technology, 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 a claimant’s patents or copyrights, royalties or other fees. Any of these events could seriously harm our business financial condition and results of operations.

Legal claims against us resulting from the actions of our customers could damage our reputation and be costly to defend.

We receive representations from our customers that the content of the advertising that we place on their behalf is lawful. We also rely on representations from our customers that they maintain adequate privacy policies that allow us to place pixels on their websites and collect data from users that visit those websites to aid in delivering our solution. However, we do not independently verify whether we are permitted to deliver advertising to our customers' Internet users or that the content of the advertisements we deliver is legally permitted. If any of our customers' representations are untrue and our customers do not abide by foreign, federal, state or local laws or regulations governing their content or privacy practices, we could become subject to legal claims against us, we could be exposed to potential liability (for which we may or may not be indemnified by our advertisers), and our reputation could be damaged.

Indemnity provisions in various agreements potentially expose us to substantial liability for intellectual property infringement and other losses.

Our agreements with advertisers, advertising agencies, and other third parties may include indemnification provisions under which we agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement, damages caused by us to property or persons, or other liabilities relating to or arising from our products, services or other contractual obligations. The term of these indemnity provisions generally survives termination or expiration of the applicable agreement. Large indemnity payments would harm our business, financial condition and results of operations.

We have identified material weaknesses in our internal controls in the past, and if we do not continue to develop effective internal controls, we may not be able to accurately report our financial results or prevent fraud, and our business could suffer as a result.

When we are no longer an "emerging growth company," as defined in the Jumpstart our Business Startups Act, or the "JOBS Act," we will be required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal controls over financial reporting. We will need to disclose any material weaknesses (as defined by SEC rules) in our internal controls over financial reporting that are identified by our management, as well as provide a statement that our independent registered public accounting firm has issued an opinion on our internal controls over financial reporting. Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal controls over financial reporting until our first annual report filed with the SEC following the later of (i) the date we are deemed to be a "large accelerated filer," as defined in the Exchange Act, or (ii) the date we are no longer an emerging growth company.

In connection with the audit of our financial statements for the year ended December 31, 2010, we identified certain material weaknesses in our internal controls resulting from a lack of qualified personnel within our accounting function that possessed an appropriate level of expertise to perform certain functions. We have since remediated these material weaknesses. We are continuing to develop our internal controls, processes and reporting systems by, among other things, hiring qualified personnel with expertise to perform specific functions, and implementing software systems to manage our revenue and expenses and to allow us to budget and undertake multi-year financial planning and analysis. This process has been and will be time-consuming, costly and complicated. We may not be successful in implementing these systems or in developing other internal controls, which could undermine our ability to provide accurate, timely and reliable reports on our financial and operating results. For example, in connection with filing a registration statement for our initial public offering, errors were identified in the unaudited consolidated statement of cash flows for the six months ended June 30, 2012. We have since corrected these errors and concluded that the corrections were immaterial. However, if we identify additional errors that are caused by material weaknesses in our internal controls over financial reporting and we do not detect the errors on a timely basis, our financial statements could be materially misstated. If we identify new material weaknesses in our internal controls over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner, if we are unable to assert that our internal controls over financial reporting are effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal controls over financial reporting when requested to do so, investors could 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 any such failures, we could also become subject to investigations by the NASDAQ Global Select Market, the SEC, or other regulatory authorities, and become subject to lawsuits by stockholders, which could harm our reputation and financial condition and divert financial and management resources from our core business.

Economic downturns and political and market conditions beyond our control could adversely affect our business, financial condition and results of operations.

Our business depends on the overall demand for advertising and on the economic health of our current and prospective advertisers. Economic downturns or instability in political or market conditions may cause current or new advertisers to reduce their advertising budgets. Adverse economic conditions and general uncertainty about economic recovery and international trade relationships in the U.S. or abroad, are likely to affect our business prospects. In addition, concerns over the sovereign debt situation in certain countries in the EU, the impact of Brexit, as well as 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.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below the expectations of investors and securities analysts, which could result in a decline in our stock price.

The preparation of financial statements in conformity with generally accepted accounting principles, or GAAP, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other 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. Our operating results could be adversely affected if our assumptions change or if actual circumstances differ from those reflected in our assumptions. If, as a result, our operating results fall below the expectations of investors and securities analysts, our stock price could decline. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, allowances for doubtful accounts and returns, internal-use software and development costs, income taxes, stock-based compensation expense and impairment of goodwill and intangible assets.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations, which could subject our business to higher tax liability.

We may be limited in the portion of net operating loss carry-forwards that we can use in the future to offset taxable income for U.S. federal and state income tax purposes. At December 31, 2016, we had U.S. federal net operating loss carry-forwards, or NOLs, of $259.9 million and state NOLs of $142.2 million. A lack of future taxable income would adversely affect our ability to utilize these NOLs. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its NOLs to offset future taxable income. Future changes in our stock ownership could result in ownership changes under Section 382 of the Code. Our NOLs may also be impaired under similar provisions of state law. We have recorded a valuation allowance related to our NOLs and other net deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets. Our NOLs may expire unutilized or underutilized, which would prevent us from offsetting future taxable income.

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

Market growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. Forecasts relating to the expected growth in the digital advertising and real-time bidding markets may prove to be inaccurate. Even if these markets experience the forecasted growth, we may not grow our business at similar rates, or at all. Our growth is subject to many factors, including our success in implementing our business strategy, which is subject to many risks and uncertainties.

We may invest in or acquire other businesses in the future. These activities require significant management attention and resources to integrate new businesses into our existing operations. These activities could disrupt our business, dilute stockholder value and adversely affect our financial condition and results of operations.

As part of our business strategy, we may make investments in or acquisitions of complementary companies, products or technologies. These activities involve significant risks to our business. We may not be able to find suitable acquisition candidates, and we may not be able to complete such acquisitions on favorable terms, if at all. The acquisitions we do complete may not ultimately strengthen our competitive position. Any acquisitions we complete could be viewed negatively by our advertisers, advertising agencies and investors, which could have an adverse impact on our business and the value of our common stock. In addition, if we are unsuccessful at integrating acquired employees or technologies, our financial condition and results of operations, including revenue growth, could be adversely affected. Any acquisition and subsequent integration will require significant time and resources. We have only completed one acquisition to date and have not yet completed our integration of the acquired business. As a result, our ability as an organization to acquire and integrate other companies, products or technologies in a successful manner is unproven. We may not be able to successfully evaluate and use the acquired technology or employees, or otherwise manage the acquisition and integration processes successfully. We will be required to pay cash, incur debt and/or issue equity securities to pay for any such acquisition, each of which could adversely affect our financial condition and the value of our common stock. The use of cash to pay for acquisitions will limit other potential uses of our cash, including investments in our sales and marketing and product development organizations, and in infrastructure to support scalability. The issuance or sale of equity or convertible debt securities to finance any such acquisitions will result in dilution to our stockholders and could negatively impact earnings per share. If we incur debt in connection with any future acquisition, it would result in increased fixed obligations and could also impose covenants or other restrictions that could impede our ability to manage our operations.

Anticipated and unanticipated charges to earnings resulting from acquisitions may adversely affect our results of operations. Under business combination accounting standards, we recognize the identifiable assets acquired and the liabilities assumed, generally at their acquisition date fair values and separately from goodwill. Our estimates of fair value are based upon assumptions we believe to be reasonable but which are inherently uncertain. After we complete an acquisition, a number of factors could result in material charges, which could adversely affect our financial condition, results of operations and cash flows, including but not limited to costs incurred to integrate employees such as employee retention, redeployment or relocation expenses; amortization, impairment or reduction in the useful lives of intangible assets; amortization or impairment of goodwill; costs to maintain certain duplicative pre-merger activities for an extended period of time or to maintain these activities for a period of time that is longer than we had anticipated; and charges to our operating results due to the expensing of certain stock awards assumed in an acquisition. In third quarter of 2015, for example, we recognized an impairment of goodwill, as described in Note 14 to our Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K. Substantially all of these costs will be accounted for as expenses that will decrease our net income and earnings per share for the periods in which those costs are incurred.

Additional risks related to investments and acquisitions include but are not limited to the following:

- The need to integrate the technology underlying an acquired company's products and services with our technology;
- The need to integrate an acquired company's sales organization with ours in a manner that will optimize sales of the combined company's offerings;
- The need to integrate an acquired company’s accounting, management information, human resources and other administrative systems to permit effective management and timely reporting and to reduce administrative costs;
- The possibility that the combined company will not achieve the expected benefits of the acquisition, including any anticipated operating and product synergies, as quickly as anticipated, if at all;
- The need to implement or remediate controls, procedures and policies appropriate for a public company in an acquired company that, prior to the acquisition, lacked these controls, procedures and policies;
- The need to address unfavorable revenue recognition or other accounting or tax treatment as a result of an acquired company’s practices;
- The possibility of higher than anticipated costs in continuing support and development of acquired products; in general and administrative functions that support new or multiple business models; or in compliance with associated regulations that are more complicated than we had anticipated;
- Cultural challenges associated with integrating employees from an acquired company or business into our organization, and the risk of attrition if integration is not successful;
- The possibility that we will be unable to retain key employees and maintain the key business and customer relationships of any business we acquire;
- The possibility that we will not discover important facts during due diligence for an acquisition that could have a material adverse impact on the value of any business we acquire and subject us to unexpected claims and liabilities, regulatory exposure and/or other expenses;
- Litigation or other claims in connection with, or inheritance of claims or litigation risks as a result of, an acquisition, including claims from terminated employees, customers or other third parties;
- Significant accounting charges resulting from the completion and integration of a sizable acquisition and related capital expenditures;
- Significant acquisition-related accounting adjustments that may cause reported revenue and profits of the combined company to be lower than the sum of their stand-alone revenue and profits;
- The possibility that the costs of, or operational difficulties arising from, an acquisition would be greater than anticipated;

- Additional country-specific risks, to the extent that we engage in strategic transactions outside of the United States, including risks related to integration of operations across different cultures and languages; currency risks; the particular economic, political and regulatory risks associated with specific countries; and the possibility that data privacy regulations in new markets may be applied differently to an acquired company's technology and practices than they are to our technology and practices; and
- The possibility that a change of control of a company we acquire triggers a termination of contractual or intellectual property rights important to the operation of its business.

Any of the foregoing factors, among others, could harm our financial condition or prevent us from achieving improvements in our financial condition and operating performance that could have otherwise been achieved by us on a stand-alone basis. Our stockholders may not have the opportunity to review, vote on or evaluate future acquisitions or investments.

Our business is subject to the risk of earthquakes, fire, power outages, floods and other catastrophic events, and to other interruptions due to natural or human causes.

We maintain servers at co-location facilities in California, Illinois, New Jersey, Nevada, Virginia, Germany, the Netherlands and Hong Kong that we use to deliver advertising campaigns for our advertisers, and expect to add other data centers at co-location facilities in the future. Any of our facilities may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, tornadoes, hurricanes, fires, floods, nuclear disasters, war, acts of terrorism, vandalism or other criminal activities, infectious disease outbreaks and power outages, any of which could render it difficult or impossible for us to operate our business for some period of time. For example, in October 2012, Hurricane Sandy caused our former data center in New York to cease operations because of storm damage, which caused us to divert online traffic to other facilities. Our corporate headquarters and the co-location facility where we maintain data used in our business operations are both located in the San Francisco Bay Area, a region known for seismic activity. If we were to lose the data stored in our California co-location facility, it could take up to two weeks to recreate this data in our Nevada co-location facility, which could result in a material negative impact on our business operations, and potential damage to our advertiser and advertising agency relationships. If one of our facilities were to suffer damage, it would likely be costly to repair or replace, and any such efforts would likely require substantial time. Any disruptions in our operations could negatively impact our business and results of operations, and harm our reputation. In addition, we may not carry sufficient business interruption insurance to compensate for the losses that may occur. Any of these losses or damages could have a material adverse effect on our business, financial condition and results of operations.

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

The price of our common stock has been volatile and the value of our common stock has declined substantially since our IPO.

Technology stocks have historically experienced high levels of volatility. The trading price of our common stock has, and is likely going to continue to fluctuate substantially. Since our initial public offering in September 2013 through December 31, 2016, our common stock has ranged in price from a low of $1.70 to a high of $71.89. These fluctuations have caused many stockholders to suffer declines in the value of their investment in our common stock. Factors that could cause further fluctuations in the trading price of our common stock include the following:

- announcements of financial results, new offerings, products, services or technologies, initiatives, commercial relationships, acquisitions or other events by us, our competitors or others in our industry sector;
- price and volume fluctuations in the overall U.S. and foreign stock markets 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;
- whether our results of operations meet the expectations of investors or securities analysts;
- actual or anticipated changes in the expectations of investors or securities analysts, whether due to our issuance of new guidance or otherwise;

34

- 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;
- sales of large blocks of our common stock;
- departures of key employees; or
- an adverse impact on us from any of the other risks cited in this Risk Factors section.

In addition, if the market for technology stocks or the stock market, in general, experience a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, results of operations or financial condition. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry whether or not these events directly affect us.

Our stock price has been volatile and has declined since our initial public offering in September 2013. The Company has been defending securities litigation. For more information, see Part 1, Item 3, "Legal Proceedings." Securities litigation, regardless of the outcome, can ultimately result in substantial costs and divert our management’s attention and resources from our business. This could have a material adverse effect on our business, financial condition and results of operations.

We have failed in the past, and may fail in the future, to meet our publicly announced guidance or other expectations about our business and future operating results. Such past failures have caused, and future failures would likely cause, our stock price to decline.

We have provided and may continue to provide guidance about our business and future operating results. In developing this guidance, our management must make certain assumptions and judgments about our future performance. We use a variety of models to forecast revenue in our business, including but not limited to models based on our bookings, estimates from our sales personnel, and projected productivity of our sales representatives. Each of our models has limitations. For example, revenue anticipated by a sales representative for a particular quarter might be delayed, reduced in amount or not materialize at all for a variety of reasons, including many that are out of our control. As another example, sales personnel productivity may change significantly from historical patterns when we hire new, less experienced sales personnel, when we introduce new products and services and if we are required to integrate sales personnel and new products as part of an acquired business. In addition, expanding competitive alternatives available to our customers in the market, an unexpected slowdown in general economic conditions, unexpected customer turnover and a variety of other factors could lead to unanticipated reductions in spending by our customers. Our industry is rapidly changing, and as we adopt new business models to address customer requirements, our historical methods of forecasting may prove inadequate. Our increasing focus on platform solutions, which have long sales cycles, exacerbates our difficulty in developing accurate forecasts. It may take a number of quarters selling platform solutions for us to understand enough about the dynamics impacting our revenue mix to be able to accurately forecast revenue for our business.

Our business results may vary significantly from our guidance due to a number of factors, many of which could adversely affect our operations and operating results. Furthermore, if our publicly announced guidance of future operating results fails to meet expectations of securities analysts, investors or other interested parties, the price of our common stock would likely decline, as it did following our announcement of guidance for the fourth quarter of fiscal 2016 on October 25, 2016.

The concentration of our capital stock ownership could limit your ability to influence the outcome of key transactions, including a change of control.

Our directors, executive officers and all of our stockholders who own greater than 5% of our outstanding common stock, in the aggregate, owned approximately 37% of the outstanding shares of our common stock based on the number of shares outstanding as of December 31, 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 yours and may vote in a manner that is adverse to your interests. This concentration of ownership may have the effect of deterring, delaying or preventing a change of control of our company, could deprive our

35

stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might ultimately affect the market price of our common stock.

The requirements of being a public company may strain our resources, and divert our management's attention.

As a public company, we are subject to the reporting requirements of the Exchange Act, and are required to comply with the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the NASDAQ Global Select Market and other applicable securities rules and regulations. Compliance with these rules and regulations have increased our legal and financial compliance costs, made some activities more difficult, time-consuming or costly and increased demand on our systems and resources. Among other things, the Exchange Act requires that we file annual, quarterly and current reports with respect to our business and results of operations and maintain effective disclosure controls and procedures and internal controls over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal controls over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could harm our business and results of operations. Although we have already hired additional employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

We are an emerging growth company, and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

For so long as we remain an emerging growth company as defined in the JOBS Act, we expect to take advantage of certain exemptions from various requirements that are applicable to public companies that are not emerging growth companies, including not being required to comply with the independent auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We may take advantage of these exemptions for so long as we are an emerging growth company, which could be as long as five years following the completion of our IPO in September 2013. Investors may find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile and may decline.

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

The trading market for our common stock will, to some extent, depend on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us should downgrade our shares or change their opinion of our business prospects, our share price would likely decline. If one or more of these analysts ceases coverage of our company or fails to regularly publish reports on us, 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, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared or paid any dividends on our common stock. We have an accumulated deficit in our stockholders' equity and have not generated net income through December 31, 2016. In addition, our credit facility contains restrictions on our ability to pay dividends. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. As a result, you may only receive a return on your investment in our common stock if the market price of our common stock increases.

Our charter documents and Delaware law could discourage takeover attempts and lead to management entrenchment.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

•

a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;

- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, our president, our secretary, or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66-2/3% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the management of our business or our amended and restated bylaws, which may inhibit the ability of an acquiror to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors, by majority vote, to amend our amended and restated bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquiror to amend our amended and restated bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

In October 2016, the Company entered into a Lease Termination and Release Agreement (the "Termination Agreement") with Google Inc. (the "Landlord") which provides for an early termination, effective as of January 2, 2017, of the Company's headquarter office lease located at 1900 Seaport Boulevard, Redwood City, CA 94063. The lease was previously scheduled to expire on December 31, 2019. The Company also entered into a new lease agreement in October 2016 and moved its headquarter office to 2000 Seaport Boulevard, 4th Floor, Redwood City, CA 94063, effective in January 2017, which is approximately a third of the existing space.

We maintain additional leased spaces, in several locations, including New York, Chicago, El Segundo (Los Angeles), South Norwalk (Connecticut) and San Francisco, domestically, as well as London, Hamburg and Paris in Europe. We maintain sales offices in other locations globally.

ITEM 3. LEGAL PROCEEDINGS

We are involved from time to time in claims, proceedings, and litigation, including the following:

On September 3, 2014 and September 10, 2014, respectively, two purported class actions were filed in the Northern District of California against us and certain of our officers and directors at the time. The actions are Shah v. Rocket Fuel Inc., et al., Case No. 4:14-cv-03998, and Mehrotra v. Rocket Fuel Inc., et al., Case No. 4:14-cv-04114. The underwriters in the initial public offering on September 19, 2013, or the "IPO," and the secondary offering on February 5, 2014, or the "Secondary Offering," were also named as defendants. These actions were consolidated and a consolidated complaint, In re Rocket Fuel Securities Litigation, was filed on February 27, 2015. The consolidated complaint alleged that the defendants made false and misleading statements about the ability of our technology to detect and eliminate fraudulent web traffic, and about our future prospects. The consolidated complaint also alleged that our registration statements and prospectuses for the IPO and the Secondary Offering contained false and misleading statements on these topics. The consolidated complaint purported to assert claims for violations of Sections 10(b) and 20(a) of the Exchange Act and SEC Rule 10b-5 (the "Exchange Act claims"), and for violations of Sections 11 and 15 of the Securities Act (the "Securities Act claims"), on behalf of those who purchased the our common stock between September 20, 2013 and August 5, 2014, inclusive, as well as those who purchased common stock in the IPO, and a claim for violation of Section 12(a)(2) of the Securities Act in connection with the Secondary Offering. The consolidated complaint sought monetary damages in an unspecified amount. All defendants moved to dismiss the consolidated complaint and on December 23, 2015, the court granted in part and denied in part the defendants’ motions to dismiss. The court dismissed the Securities Act claims and all but one of the statements on which the Exchange Act claims were based. The court also dismissed all claims against the outside directors and the underwriters of the public offerings. On February 24, 2017, the parties advised the court that they had reached an agreement in principle to settle the case in its entirety. The agreement in principle to settle the lawsuit is subject to several conditions, including the execution of a stipulation of settlement that is satisfactory to all parties, and preliminary and final approval from the court, among other things. If the settlement is finalized and approved by the court, the settlement amount will be funded by the company’s insurance carrier.

On March 23, 2015, a purported shareholder derivative complaint for breach of fiduciary duty, waste of corporate assets, and unjust enrichment was filed in San Mateo, California Superior Court against certain of our then-current and former officers and our board of directors at that time. The action was Davydov v. George H. John, et.al, Case No. CIV 53304. The complaint sought monetary damages in an unspecified amount, restitution, and reform of internal controls. On March 29, 2016, a purported shareholder derivative complaint for breach of fiduciary duty and violation of California corporations code section 25402 was filed in San Francisco, California Superior Court against certain of the Company's current and former officers and certain of the Company's current and former directors. The action was Lunam v. William Ericson, et. al., Case No. CGC-16-551209. The complaint sought monetary damages in an unspecified amount and reform of internal controls. Both of these state court actions were stayed pending the resolution of the In re Rocket Fuel, Inc. Derivative Litigation action described below. Following the dismissal with prejudice of the In re Rocket Fuel, Inc. Derivative Litigation action as described below, the parties in both the Lunam and Davydov actions reached agreements to voluntarily dismiss the actions without compensation. On February 6, 2017, the Lunam action was dismissed without prejudice, and on February 8, 2017, the Davydov action was dismissed without prejudice.

On October 6, 2015, a purported verified shareholder derivative complaint was filed in the Northern District of California. The action is Victor Veloso v. George H. John et al., Case No. 4:15-cv-04625-PJH. Beginning in January 2016, three substantially similar related cases, Gervat v. Wootton et al., 4:16-cv-00332-PJH, Pack v. John et al., 4:16-cv-00608-EDL, and McCawley v. Wootton et al., Case No. 4:16-cv-00812, also were filed in the Northern District of California on January 21, 2016, February 4, 2016 and February 18, 2016, respectively. The complaints in these related actions were based on substantially the same facts as the In re Rocket Fuel Securities Litigation, and named as defendants the Company’s board of directors at the time of filing and certain then-current and former executives. The four purported verified shareholder derivative complaints were consolidated by the Court in March 2016, and a complaint in the consolidated action, titled In re Rocket Fuel, Inc. Derivative Litigation, Case No. 4:15-cv-4625-PJH, was filed on April 14, 2016. All defendants moved to dismiss the consolidated complaint on May 19, 2016 and on October 6, 2016 In re Rocket Fuel Inc. Derivative Litigation was dismissed with prejudice. Following the dismissal with prejudice, former plaintiffs in In re Rocket Fuel Inc. Derivative Litigation sent us a letter dated

October 12, 2016 (the “Shareholder Demand”) demanding that the Board of Directors take action to remedy purported breaches of fiduciary duties allegedly related to the claims asserted in In re Rocket Fuel, Inc. Derivative Litigation which were substantially the same as the asserted claims in In re Rocket Fuel Securities Litigation. The Company acknowledged the Shareholder Demand on October 19, 2016. Similar letters were sent by the plaintiffs in the Lunam derivative action discussed above and the plaintiff in the Davydov action discussed above, on November 14, 2016 and February 26, 2017, respectively, also demanding that the Board of Directors take action to remedy the same purported breaches of fiduciary duties alleged in the Shareholder Demand. Our Board of Directors has formed a committee to evaluate the demand letters and investigate the claims associated therewith.

The outcomes of the legal proceedings are inherently unpredictable, subject to significant uncertainties, and could be material to our operating results and cash flows for a particular period. Unless otherwise specifically disclosed herein, no provision for loss nor disclosure is required related to these actions because: (a) there is not a reasonable possibility that a loss exceeding amounts already recognized (if any) may be incurred with respect to such claims; (b) a reasonably possible loss or range of loss cannot be estimated; or (c) such estimate is immaterial.

Legal fees are expensed in the period in which they are incurred.

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

Market Information for Common Stock

Our common stock is traded on the NASDAQ Global Select market under the symbol "FUEL". The following table sets forth for the periods indicated the high and low sale prices per share of our common stock as reported on the NASDAQ Global Select Market:

	High	Low
Fiscal 2015		
First Quarter	$16.82	$9.05
Second Quarter	$9.66	$7.53
Third Quarter	$8.28	$4.41
Fourth Quarter	$5.60	$2.80
Fiscal 2016		
First Quarter	$4.10	$2.61
Second Quarter	$3.21	$2.09
Third Quarter	$3.48	$2.15
Fourth Quarter	$2.90	$1.70

Holders of Record

As of February 28, 2017, we had 143 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders because it includes stockholders who are beneficial owners but whose shares are held of record in street name by brokers, banks or other nominees.

Dividends

We did not declare or pay any cash dividends on our common stock during 2015 or 2016 and we have no present intention of paying any cash dividends on our common stock in the foreseeable future. Our credit facility contains restrictions on our ability to pay dividends. See "Liquidity and Capital Resources" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of this Annual Report on Form 10-K.

Recent Sale of Unregistered Securities

Not applicable.

Use of Proceeds

Not applicable.

Purchases of Equity Securities by the Issuer and Affiliated Purchaser

The table below provides information with respect to repurchases of unvested shares of our common stock made pursuant to our 2008 Equity Incentive Plan, or 2008 Plan.

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
October 1 - October 31, 2016	—	$ —	—	—
November 1 - November 30, 2016	—	—	—	—
December 1 - December 31, 2016	—	—	—	—
Total	—	$ —		

(1) Under the 2008 Plan, participants may exercise options prior to vesting, subject to our right of repurchase if the participant ceases providing services to us prior to the date on which all shares issued upon exercise of the options have vested. All shares in the above table were shares repurchased as a result of our exercising this right of repurchase and not pursuant to a publicly announced plan or program.

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 Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under Section 18, and shall not be deemed to be incorporated by reference into any filing of ours under the Securities Act of 1933, as amended.

The following graph shows a comparison from September 20, 2013 (the date our common stock commenced trading on the NASDAQ Global Select Market) through December 31, 2016 of the cumulative total return for our common stock, the Standard & Poor’s 500 Stock Index, or "S&P 500 Index" and the Nasdaq Composite Index, or "NASDAQ Composite." The graph assumes that $100 was invested at the market close on September 20, 2013 in our common stock, the S&P 500 Index and the NASDAQ Composite, and the data for the S&P 500 Index and the NASDAQ Composite assumes reinvestments of dividends. We have never declared or paid a cash dividend on our common stock and do not anticipate declaring or paying a cash dividend in the future. The stock price performance of the following graph is not indicative of future stock price performance.

COMPARISON OF CUMULATIVE TOTAL RETURN

ITEM 6. SELECTED FINANCIAL DATA

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

The consolidated statements of operations data for each of the three years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 are derived from and qualified by reference to our audited consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K. The consolidated statements of operations data for the two years ended December 31, 2013 and 2012 and the consolidated balance sheet data as of December 31, 2014, 2013 and 2012 are derived from our audited financial statements not included elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of our results in any future period.

	Years Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenue	$456,263	$461,637	$408,641	$240,605	$106,589
Costs and expenses:					
Media cost	204,168	189,089	173,477	103,637	50,669
Other cost of revenue (1)	85,120	79,867	48,586	21,883	9,342
Research and development (1)	35,354	44,922	39,794	17,714	4,876
Sales and marketing (1)	131,099	166,140	146,430	83,345	41,069
General and administrative (1)	50,117	58,354	60,545	28,708	8,403
Impairment of goodwill	—	117,521	—	—	—
Restructuring	8,122	7,393	—	—	—
Total costs and expenses	513,980	663,286	468,832	255,287	114,359
Operating loss	(57,717)	(201,649)	(60,191)	(14,682)	(7,770)
Other expense, net:					
Interest expense	4,466	4,563	3,092	917	316
Other (income) expense—net	2,387	3,112	5,267	308	(135)
Change in fair value of convertible preferred stock warrant liability	—	—	—	4,740	2,308
Loss before income taxes	(64,570)	(209,324)	(68,550)	(20,647)	(10,259)
Income tax (benefit) provision	1,125	1,221	(4,239)	285	84
Net loss	$(65,695)	$(210,545)	$(64,311)	$(20,932)	$(10,343)
Basic and diluted net loss per share attributable to common stockholders (2)	$(1.47)	$(4.95)	$(1.74)	$(1.38)	$(1.29)
Basic and diluted weighted-average shares used to compute net loss per share attributable to common stockholders	44,579	42,551	37,001	15,177	8,024

(1) Includes stock-based compensation expense as follows:

	Years Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands)				
Other cost of revenue	$1,978	$1,975	$1,758	$471	$37
Research and development	3,523	7,706	5,039	2,308	734
Sales and marketing	4,926	9,894	10,372	4,482	1,100
General and administrative	4,762	6,399	6,361	3,581	1,450
	$15,189	$25,974	$23,530	$10,842	$3,321

(2) See Note 10 to our Consolidated Financial Statements for a description of the method used to compute basic and diluted net loss per share attributable to common stockholders.

	As of December 31,				
	2016	2015	2014	2013	2012
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$84,024	$78,560	$107,056	$113,873	$14,896
Property, equipment and software, net	49,561	82,781	89,441	25,794	10,939
Working capital	16,568	40,978	97,562	140,850	37,935
Total assets	302,701	347,054	539,265	237,508	75,189
Debt obligations, current and non-current (3)	71,190	63,337	69,040	26,811	6,966
Capital lease obligations, current and non-current	15,046	20,457	17,823	615	—
Total stockholders' equity	87,151	133,900	312,766	143,167	40,863

(3) The debt obligations as of December 31, 2016 and 2015 on the consolidated balance sheet are net of $0.3 million and $0.7 million in debt issuance costs, respectively.

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 the consolidated financial statements included later in 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 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 ‘‘Risk Factors’’ and ‘‘Special Note Regarding Forward-Looking Statements.’’

Overview

Rocket Fuel brings the power of machine learning to the world of digital marketing, offering technology and services designed to help advertising agencies and their clients connect with consumers through digital media at moments when that connection is most likely to be influential and most likely to achieve the advertiser’s objectives. Our platform autonomously purchases ad spots, or impressions, one at a time, on real-time advertising exchanges to create portfolios of impressions designed to optimize the goals of our advertisers, such as increased sales, heightened brand awareness and decreased cost per customer acquisition.

Our core service offerings are organized around two solutions - a Demand Side Platform (DSP) and a Data Management Platform (DMP) - which can be used independently or together, and can be integrated with a customer’s other customer relationship management or marketing platforms. We refer to our DSP alone or our DSP plus DMP solutions as our Predictive Marketing Platform. That integrated platform is designed to deliver and optimize media spend to engage, upsell, and retarget consumers across addressable channels-including display, mobile, video, social, and television, and across addressable devices, including tablets, personal computers, set top boxes, television, and mobile phones. We offer our Predictive Marketing Platform as a managed service, which we operate on behalf of our customers (our "Media Services"), and as a technology solution our customers acquire and operate themselves, or acquire and obtain supporting services from us (our "Platform Solutions").

Core to our ability to connect advertisers and consumers is our artificial intelligence (AI) engine, which consists of big data-driven predictive modeling and automated decision-making components. Our programmatic marketing platform uses a technology enabled by our AI that we call Moment Scoring™, which is designed to consider in a fraction of a second whether a particular advertising opportunity, or impression, is the right time to influence a consumer, based on our platform’s real-time scoring - positive or negative - of the likelihood of consumer engagement with the advertising based on relevant attributes.

Our programmatic marketing platform is designed to learn from each advertising message it delivers and apply that learning to future decisions as the advertising campaign is being delivered - a feature we call Marketing that Learns™.

In September 2014, we acquired X Plus Two Solutions, Inc., the parent company of X Plus One Solutions, Inc. ("[x+1]"), a privately held programmatic marketing technology company. Our acquisition of [x+1] allowed us to add important assets to our technology solutions, including our DMP.

Factors Affecting Our Performance

We believe the growth and any future profitability of our business and our future success depend on various opportunities, challenges and other factors, including the following:

Growth and Availability of the Real-time Advertising Exchange Market and Digital Advertising

Our performance is affected by growth rates in both real-time advertising exchanges and the digital advertising channels we address. These markets have grown rapidly in the past several years but are highly dynamic; any acceleration, or slowing, of this growth would affect our overall performance.

The availability of inventory on real-time advertising exchanges and our ability to access this inventory, and our access to premium inventory available directly from publishers via private market places ("PMP"), could also impact our performance as we must optimize our solutions across the display (fundamentally desktop and laptop), mobile, social and video channels. We face different competitive landscapes in mobile, social and video channels. For example, at the beginning of 2015 Facebook eliminated access to the Facebook exchange platform, or "FBX," for some of their partners including us, requiring us to adapt our offering in order to continue to access some of the advertising inventory from Facebook. We adapted our technology offerings to address this change, but our sales efforts were impacted and our Facebook campaigns declined as we shifted to buying Facebook inventory

through their APIs. Facebook continued to allow some other companies in our industry to purchase inventory through the FBX platform, which was available through November 1, 2016, and which likely put us at a competitive disadvantage. Another potential emerging trend that could impact our future performance is our ability to access inventory, particularly premium inventory through real-time bidding, or "RTB'", or through relationships directly with publishers. Our DSP offering primarily relies on having access to RTB exchanges; however, some publishers have begun to remove their advertising inventory from RTB exchanges, notably the FBX restrictions noted above and changes to Google’s YouTube video inventory availability beginning in 2016.
Another potential emerging trend that could impact our future performance is our ability to access inventory, particularly premium inventory through programmatic buying directly with publishers or through RTB exchanges especially through header bidding. Our DSP offering primarily relies on having access to RTB exchanges where publishers make their advertising inventory available; however, some publishers have begun to remove their advertising inventory from RTB exchanges, notably the FBX restrictions noted above and changes to Google’s YouTube video inventory availability beginning in 2016. Publishers are also reducing and consolidating the amount of RTB Exchanges where they make their inventory available as a result of the impact of header bidding.

Ability to Compete Effectively to Sell our Media Services and Platform Solutions
We are focused on developing direct response and brand advertising solutions for agencies, advertisers and publishers, available through our Media Services and our Platform Solutions. We believe we can offer our Predictive Marketing Platform that combines the functionality of our DSP with features of our DMP to enhance digital media buys across any programmatic inventory.

Our Predictive Marketing Platform competes for digital advertising budgets with a variety of companies, including other companies with DSP offerings, agency trading desks, publishers that sell their inventory directly to agencies and advertisers, and companies that offer self-service platforms, which allow advertisers to purchase inventory directly from advertising exchanges or other third parties and to manage and analyze their own data and third-party data. Furthermore, agencies have been effective at promoting the use of agency trading desks and are increasingly involved in helping to select self-service platform providers for the advertisers they represent.
In July 2014, we announced our Platform Solutions in the United States and Europe, which allow us to compete more directly with companies that offer self-service platform solutions to agencies (as their trading desk solution) and to advertisers. To succeed, we must attract customers to our Predictive Marketing Platform, and establish relationships with systems integrators and other partners to integrate our functionality into their customers' marketing technology platforms. We must also compete with offerings that are often priced at a substantially lower percentage of media spend than our platform pricing. As we offer Platform Solutions to more customers across the globe, our costs of compliance with policies set by real time advertising exchanges for the use of their exchanges increases as these customers use our Predictive Marketing Platform to purchase inventory. We also take on risk that customers on our platform violate these policies through the distribution of malware or other policy violations, and those policy violations jeopardize our access to real time advertising exchanges on behalf of our Media Services customers and other Platform Solutions customers. We have terminated relationships with customers whose policy violations have jeopardized our access to real time advertising exchanges.
In addition to challenges created by the emergence of agency trading desks and competing self-service platforms, our insertion order, or "IO,"-based Media Services business has faced increased challenges within some of the major agency holding companies. These challenges include overcoming questions and objections regarding our pricing and related media margins, impression placements and the transparency of our results, and how our technology achieved them. We are focused on addressing these concerns with the major agency holding companies, their agencies and trading desks, and in some cases adjusted our pricing in order to better compete which reduced our media margin.
To expand our reach with advertisers we have a number of sales representatives dedicated to Platform Solutions sales. We are also developing partnerships with marketing software companies, system integrators and agency partners to enhance our ability to gain access to senior level marketing decision makers.

Our customers have many DSP and DMP solutions and technology partners to choose from. In order to increase the adoption of our Predictive Marketing Platform, we are enhancing its ease of use and working on proving the value of our solutions to agency holding companies, their affiliated operating agencies and advertisers.

Mix of Media Services versus Platform Solutions and Impact on Margins

Our strategy to offer our Predictive Marketing Platform as a Platform Solution has had, and we expect will continue to have, an impact on our revenue mix and profitability, and we expect our media margins to decline. Platform Solutions represented 19% and 8% of revenue for the years ended December 31, 2016 and 2015.

Media Services agreements, in the form of insertion orders, typically have a term of a few weeks to months, and are most often priced on a cost-per-thousand impressions basis with the media spend optimized by our technology. Platform Solutions agreements, on the other hand, may have longer terms to use the technology at a predetermined percentage of media spend, which may vary based on volume. The media margin in Platform Solutions is typically materially lower than for Media Services. Our strategy to focus on a smaller number of high value customers is also impacting our Media Service and Platform Solutions margins, primarily due to lower fixed rates provided to clients with larger media spend.

In Platform Solutions, our operating costs are higher up front as we train and assist our customers adopting our platform and as they increase the number of campaigns run on it, but we expect such costs to decline over time as our customers learn to use the platform or agree to pay us additional services fees for assistance we provide on a longer term basis. Our success in our Platform Solutions strategy depends upon our ability to train our platform customers quickly and efficiently, to charge for services required over time, and to increase the number of volume of digital media placements these customers run through our platform.

Expanding our Business with Higher Value Customers

In order to achieve sustainable revenue growth, we must retain spend with existing high value customers, gain a larger share of our current customers’ advertising budgets, and attract new, high-value customers. Our strategy is to focus on expanding our business with a smaller set of larger, higher value customers rather than expanding our customer count. Accordingly, a key measure for us is revenue from our top 50 and 250 customers. During the fourth quarter of fiscal year 2016, revenue from our top 50 customers was 59% of total revenue, compared to 46% during the fourth quarter of fiscal year 2015. Revenue from our top 250 customers was 87% of total revenue during the fourth quarter of fiscal year 2016, compared to 79% during the fourth quarter of fiscal year 2015.

We believe that expanding our business with higher value customers is an important indicator of our ability to grow our business and achieve profitability through scale. Our goal is to increase our revenue period-over-period, and to increase the percentage of that revenue represented by these two customer sets.

Ability to Improve the Productivity and Efficiency of our Resources and Infrastructure

We have invested for long-term growth through the expansion of our offerings and infrastructure to address the needs of our target markets, including offering our Predictive Marketing Platform as Media Services and Platform Solutions. Looking ahead, we will focus on achieving revenue growth by focusing our sales efforts on fewer, higher value customers, and by increasing the adoption of our Platform Solutions by agencies and direct customers.

Employee attrition and the resulting influx of new leaders and other employees in 2016 and 2015 have impacted our efficiency across the company as we expend the time and resources necessary to recruit and retain our talent, restructure our organizations, and train new employees.

Our capital expenditures for property, equipment and software were $11.5 million during fiscal year 2015 as we completed the majority of our facilities. During fiscal year 2016, we spent $5.4 million to purchase property, equipment and software, that we did not finance through leasing, and for fiscal year 2017 we expect these expenditures to remain at comparable levels. To minimize the upfront cash investment required to scale our data centers, we utilize capital leasing facilities, as available, to finance our data center hardware and software needs. We will need to invest in our computational infrastructure and equipment to continue to maintain and scale our business.

Working Capital

In all of our Media Services business and substantially all of our Platform Solutions business, we make media purchases to run our customers' advertising campaigns. In our industry, agencies and advertisers typically pay more slowly than we are required to make payments to media providers, resulting in payment terms that are approximately one-half of collection times. Our goal is to grow our business, but to do so will require either that we better align our collection and payment terms, obtain additional capital to support this working capital requirement, or develop alternatives to enable our customers to purchase media directly.

Ability to Grow Programmatic Advertising for Video Brand Campaigns

Our DSP solution is designed to optimize campaigns for direct response and brand advertisers by generating specific consumer responses, and to drive brand awareness.

The digital advertising industry is rapidly adopting programmatic buying for video advertising and programmatic TV, or "pTV," which is dominated by brand campaigns. To measure our success in brand, we categorize and report video and pTV campaigns as brand, and report all non-video or non-pTV campaigns as direct-response. In the fourth quarter of fiscal year 2016, the revenue split between direct-response and brand was approximately 91% to 9%, compared to 94% to 6%, respectively, in the fourth quarter of fiscal year 2015. We expect the demand for programmatic brand advertising to expand in the future, and thus we will continue our strategic focus on this opportunity. Our success in our brand strategy will depend in part upon our ability to further develop models to validate our video campaigns' performance to our customers.

Seasonality

In the advertising industry, companies commonly experience seasonal fluctuations in revenue. For example, many advertisers allocate the largest portion of their budgets to the fourth quarter of the calendar year to coincide with increased holiday purchasing. Historically, the fourth quarter of the year reflects our highest level of advertising activity, and the first quarter reflects the lowest level of such activity. We expect our revenue to continue to be influenced by seasonal factors that affect the advertising industry as a whole. Despite the seasonal nature of our revenue, many of our costs, such as headcount-related expenses, depreciation and amortization, and facilities costs, are relatively fixed in the short term and do not follow these same seasonal trends.

Components of Our Results of Operations

Revenue

We generate revenue primarily by delivering digital advertisements to consumers through the display channel and other channels such as mobile devices and through video and social channels. We predominantly contract with advertising agencies who purchase our solution on behalf of advertisers. When we contract with an agency, it acts as an agent for a disclosed principal, which is the advertiser. Our contracts typically provide that if the advertiser does not pay the agency, the agency is not liable to us, and we must seek payment solely from the advertiser. The majority of our contracts with advertisers, including advertising agencies representing advertisers, are in the form of insertion orders that outline the terms and conditions of an advertising campaign and its objectives and in the case of Platform Solutions customers in the form of long-term master service agreements that may be complemented with statements of work describing the services to be rendered. Insertion orders and statements of work typically have a term of less than a year, and we recognize revenue as we deliver advertising impressions, subject to satisfying all other revenue recognition criteria. To a lesser extent, we generate revenue from license fees to access our DMP and DSP offerings and related professional services, which are generally recognized over the term of the performance period. Our revenue recognition policies are discussed in more detail in Note 1 to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Costs and Expenses

We classify our recurring expenses into these categories: media costs, other cost of revenue, research and development, sales and marketing and general and administrative. Personnel costs for each category of expense other than media costs generally include salaries, bonuses and sales commissions (for sales and marketing only), stock-based compensation expense and employee benefit costs. Allocated costs include charges for facilities, office expenses, utilities, telephones and other miscellaneous expenses. Our Statements of Operations also include the impairment of goodwill charges and restructuring charges, explained below and in Notes 7 and 14 to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

- Media costs. These costs consist primarily of costs for advertising impressions we purchase from advertising exchanges, publishers and other third parties, which are expensed when incurred. We typically pay for these media costs on a per impression basis. We anticipate that our media costs will continue to vary with the related seasonal changes in revenue and overall growth in revenue. In the fourth quarter of fiscal year 2016, we reported a sequential increase in media costs as an increasing percentage of our revenue is generated by Platform Solutions offerings, which have substantially lower media margins (revenue minus media costs) and with our largest customers, that typically have lower media margins. Over the longer term, if we are successful with our efforts to increase the Platform Solutions business as part of our revenue mix, and/or are successful in structuring large agency trading desk deals, we expect the resulting changes in revenue mix to continue to increase our media costs as a percentage of total revenue.

- Other cost of revenue. These costs include personnel costs, depreciation and amortization expense, amortization of internal-use software development costs, third-party inventory validation and data vendor costs, data center hosting costs and allocated costs. The personnel costs are primarily attributable to individuals maintaining our servers and members of our operations and analytics groups, which initiates, sets up, launches and monitors our advertising campaigns or implements and supports our platform. We capitalize costs associated with our platform software that is developed or obtained for internal-use, and amortize these costs in other cost of revenue over the internal-use software's useful life. Third-party inventory validation and data vendor costs consist primarily of costs to augment campaign performance and monitor our brand safety efforts. Other cost of revenue also includes third-party data center costs and depreciation of data center equipment. We anticipate that our other cost of revenue will remain at a similar percentage of total revenue in fiscal 2017 as in fiscal year 2016.
- Research and development. Our research and development expenses consist primarily of personnel costs and professional services associated with the ongoing development and maintenance of our technology. We believe that continued investment in technology is critical to pursuing our strategic objectives and we will prioritize resources on the most critical projects. Consistent with GAAP, we capitalize a portion of our software development costs, and amortize such costs to Other Costs of Revenue over the useful periods of the projects' lives. In fiscal 2017, we expect research and development expenses (net of amounts capitalized in software development costs) to remain at a similar percentage of total revenue from fiscal year 2016 levels.
- Sales and marketing. Our sales and marketing expenses consist primarily of personnel costs (including sales commissions) and allocated costs, professional services, brand marketing, travel, trade shows and marketing materials. Our sales and marketing organization focuses on marketing our solutions to generate awareness, as well as increasing the adoption of our solutions by existing and new advertisers and agencies. In fiscal year 2017, we expect overall sales and marketing expenses to decrease from fiscal year 2016 levels.
- General and administrative. Our general and administrative expenses consist primarily of personnel costs associated with our executive, IT, finance, legal, human resources, compliance and other administrative functions, as well as accounting, audit and legal professional services fees, allocated costs and other corporate expenses. Other miscellaneous expenses primarily include local taxes and fees. In fiscal year 2017, we expect general and administrative expenses to decrease from fiscal year 2016 levels.
- Restructuring expense. Restructuring expense is related to severance payments to employees, exit costs for excess facilities, depreciation or impairments of lease-related assets and the release of deferred rent liabilities related to terminated leases. We expect to incur additional restructuring related expenses (net of gains) as we continue to restructure our facilities in fiscal year 2017. Refer to Note 7 and 16 to our Consolidated Financial Statements in Part II, Item 8 in this Annual Report on Form 10-K for details of our restructuring expenses.

Other Expense, Net

Interest expense. Interest expense is primarily related to our credit facility and capital leases.

Other (income) expense, net. Other (income) expense - net consists primarily of gains and losses on foreign currency transactions. We have foreign currency exposure related to our cash and accounts receivable that are denominated in currencies other than the U.S. dollar, primarily the Canadian dollar, British pound and the Euro. As our foreign sales and expenses increase, our operating results may be more affected by fluctuations in the exchange rates of the currencies in which we do business.

Income Tax Provision (Benefit)

Income tax provision (benefit) consists primarily of income taxes in foreign jurisdictions in which we conduct business. Due to uncertainty as to the realization of benefits from our deferred tax assets, including net operating loss carry-forwards, research and development and other tax credits, we maintain a full valuation allowance against most of our deferred tax assets. We expect to maintain this valuation allowance at least in the near term.

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 (in thousands):

	Years ended December 31,		
	2016	2015	2014
Consolidated Statements of Operations Data:			
Revenue	$456,263	$461,637	$408,641
Costs and expenses:			
Media cost	204,168	189,089	173,477
Other cost of revenue (1)	85,120	79,867	48,586
Research and development (1)	35,354	44,922	39,794
Sales and marketing (1)	131,099	166,140	146,430
General and administrative (1)	50,117	58,354	60,545
Impairment of goodwill	—	117,521	—
Restructuring	8,122	7,393	—
Total costs and expenses	513,980	663,286	468,832
Operating loss	(57,717)	(201,649)	(60,191)
Interest expense	4,466	4,563	3,092
Other (income) expense, net	2,387	3,112	5,267
Loss before income taxes	(64,570)	(209,324)	(68,550)
Income tax (benefit) provision	1,125	1,221	(4,239)
Net loss	$(65,695)	$(210,545)	$(64,311)
Net loss per share, basic and diluted	$(1.47)	$(4.95)	$(1.74)

(1) Includes stock-based compensation expense as follows (in thousands):

	Years ended December 31,		
	2016	2015	2014
Other cost of revenue	$1,978	$1,975	$1,758
Research and development	3,523	7,706	5,039
Sales and marketing	4,926	9,894	10,372
General and administrative	4,762	6,399	6,361
Total	$15,189	$25,974	$23,530

	Years ended December 31,		
	2016	2015	2014
Consolidated Statements of Operations Data: *			
Revenue	100 %	100 %	100 %
Costs and expenses:			
Media cost	45	41	42
Other cost of revenue	19	17	12
Research and development	8	10	10
Sales and marketing	29	36	36
General and administrative	11	13	15
Impairment of goodwill	—	25	—
Restructuring	2	2	—
Total costs and expenses	114	144	115
Operating loss	(14)	(44)	(15)
Interest expense	1	1	1
Other (income) expense, net	1	1	1
Loss before income taxes	(16)	(46)	(17)
Income tax (benefit) provision	—	—	(1)
Net loss	(16)%	(46)%	(16)%

*Certain figures may not sum due to rounding.

Comparison of the Years Ended December 31, 2016, 2015 and 2014

Revenue

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Revenue	$456,263	$461,637	$408,641	(1%)	13 %

Revenue decreased $5.4 million, or 1%, during the year ended December 31, 2016 compared to the year ended December 31, 2015 due primarily to lower North American agency business, partially offset by higher revenue from our Platform Solutions offerings and outside of North America operations. Media Services represented 81% and 92% of revenue and Platform Solutions was 19% and 8% of revenue for the years ended December 31, 2016 and 2015, respectively. Revenue from outside of North America, as a percentage of revenue, increased to 19% from 17% during the years ended December 31, 2016 and 2015, respectively.

Revenue increased $53.0 million, or 13%, during the year ended December 31, 2015 compared to the year ended December 31, 2014. Adding new customers that tend to spend less, and declining spend from some larger customers, along with some customer turnover, have contributed to the declining rate of year-over-year revenue growth on a percentage basis since 2013. The increase in revenue was attributable to the revenue from the former [x+1] customers following our acquisition in September 2014. This increase was partially offset by, among other factors, a decline in revenue from customers migrating their business to competitors or adopting third-party self-service platforms. Revenue from outside of North America, as a percentage of revenue, increased to 17% from 15% during the years ended December 31, 2015 and 2014, respectively.

Media Cost and Other Cost of Revenue

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Media Cost	$204,168	$189,089	$173,477	8 %	9 %
Other cost of revenue	$85,120	$79,867	$48,586	7 %	64 %
Headcount (at period end)	191	143	161	34%	(11%)

Media costs were $204.2 million during the year ended December 31, 2016 compared to $189.1 million during the year ended December 31, 2015, representing 45% and 41% of revenue in the years ended December 31, 2016 and 2015, respectively. The increase in media costs of $15.1 million, or 8%, and associated increase in media costs as a percentage of revenues was due to the broader adoption of fixed-margin agreements as opposed to CPM-based pricing and the mix shift from Media Services to Platform Solutions which has substantially lower media margins (revenue minus media costs).

Other cost of revenue increased by $5.3 million or 7%, during the year ended December 31, 2016 compared to the year ended December 31, 2015. This increase was primarily due to an increase in depreciation and amortization of $3.8 million, which relates to capitalized internal-use software, acquired technology intangible assets and other fixed assets and an increase in personnel costs of $2.0 million from an increase in headcount in campaign support and professional service functions. Amortization of capitalized internal-use software was $10.9 million and $7.6 million for the years ended December 31, 2016 and 2015, respectively.

Media costs increased by $15.6 million, or 9%, during the year ended December 31, 2015 compared to the year ended December 31, 2014 due to our increased sales volume. Media costs represented approximately 41% and 42% of revenue in the years ended December 31, 2015 and 2014, respectively, due to improvements in our AI-based DSP platform.

Other cost of revenue increased by $31.3 million or 64%, during the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to an increase in depreciation and amortization of $14.0 million, which includes capitalized internal-use software of $7.6 million, other fixed assets and amortization of acquired technology intangible assets of $11.6 million, an increase in personnel costs of $11.4 million, an increase in hosting costs of $3.3 million and an increase in data and inventory validation costs of $1.9 million. The increase in personnel costs was primarily driven by the addition of [x+1] personnel for the full year plus other hiring. The average headcount during the year ended December 31, 2015 was higher than during the year ended December 31, 2014, leading to the increase in personnel costs even though year-end headcount was lower at December 31, 2015. The increase in hosting and data and inventory validation costs reflected the growth in revenue and expansion of our data centers.

Research and Development

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Research and development	$35,354	$44,922	$39,794	(21%)	13 %
Percent of revenue	8 %	10 %	10 %		
Headcount (at period end)	126	160	196	(21%)	(18%)

Research and development expense decreased by $9.6 million, or 21%, during the year ended December 31, 2016 compared to the year ended December 31, 2015. This decrease was primarily due to a decrease in personnel expense of $8.0 million. The decrease in personnel expense was due to a decrease in average headcount during the year ended December 31, 2016.

Research and development expense increased by $5.1 million, or 13%, during the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to an increase in personnel expense of $4.1 million and an increase in depreciation and amortization expense of $1.9 million. The increase in personnel expense was due to the expanded headcount during the first half of fiscal year 2015 from the addition of [x+1] personnel for the full year plus other hiring. The

average headcount during the year ended December 31, 2015 was higher than during the year ended December 31, 2014, leading to the increase in personnel costs even though year-end headcount was lower at December 31, 2015.
We capitalized internal-use software development costs of $13.1 million, $15.5 million and $9.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. The decrease in software capitalization for the year ended December 31, 2016 compared to the prior year was primarily due to a decrease in average headcount due to attrition.
Sales and Marketing

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Sales and marketing	$131,099	$166,140	$146,430	(21%)	13 %
Percent of revenue	29 %	36 %	36 %		
Headcount (at period end)	392	511	594	(23%)	(14%)

Sales and marketing expense decreased by $35.0 million, or 21%, during the year ended December 31, 2016 compared to the year ended December 31, 2015. This decrease was primarily due to a decrease in personnel expense of $18.6 million, a decrease in depreciation and amortization expense of $5.0 million, a decrease in travel expenses of $4.6 million, a decrease in allocated costs of $2.6 million, and a decrease in marketing expenses of $1.7 million. The decrease in personnel expense was primarily due to a decrease in average headcount and the decrease in travel, marketing and allocated costs was due to costs cutting measures implemented during the year ended December 31, 2016. The decrease in depreciation and amortization expense is related to the impairments of our leasehold improvement assets in certain offices in connection with our restructuring activities during the year ended December 31, 2016.
Sales and marketing expense increased by $19.7 million, or 13%, during the year ended December 31, 2015 compared to the year ended December 31, 2014. This increase was primarily due to an increase in personnel expense of $9.4 million and an increase in depreciation and amortization expense of $11.8 million. The increase in personnel expense was primarily due to our expanded sales force during the first half of fiscal year 2015 through hiring and the addition of [x+1] personnel for the full year. The average headcount during the year ended December 31, 2015 was higher than during the year ended December 31, 2014, leading to the increase in personnel costs even though year-end headcount was lower at December 31, 2015.
General and Administrative

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
General and administrative	$50,117	$58,354	$60,545	(14%)	(4 %)
Percent of revenue	11 %	13 %	15 %		
Headcount (at period end)	142	140	172	1 %	(19%)

General and administrative expense decreased by $8.2 million, or 14%, during the year ended December 31, 2016 compared to the year ended December 31, 2015. This decrease was primarily due to a decrease in personnel expense of $6.2 million and a decrease in professional services fees of $2.2 million. The decrease in personnel costs was driven by a decrease in the average headcount during the year ended December 31, 2016. The decrease in professional services was primarily due to a decrease in legal fees during the year ended December 31, 2016.
General and administrative expense decreased by $2.2 million, or 4%, compared to the year ended December 31, 2014. This decrease was primarily due to a decrease in acquisition and integration related costs associated with the acquisition of [x+1] of $7.8 million, partially offset by an increase in personnel expense of $3.2 million and, to a lesser extent, to an increase in professional services of $1.0 million. The increase in personnel costs was driven by the expanded headcount during the first half of fiscal year 2015 from hiring and the addition of [x+1] personnel. The

average headcount during the year ended December 31, 2015 was higher than during the year ended December 31, 2014, leading to the increase in personnel costs even though year-end headcount was

52

lower at December 31, 2015. The increase in professional services was primarily due to legal fees during the year ended December 31, 2015.

Goodwill Impairment

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Goodwill impairment	$—	$117,521	$—	(100%)	100%
Percent of revenue	—%	25 %	—%		

We recorded a goodwill impairment of $117.5 million in September 2015, representing the full balance of goodwill that had previously been capitalized on our balance sheet. Refer to Note 14 to our Consolidated Financial Statements in Part II, Item 8 in this Annual Report on Form 10-K for details of our goodwill impairment test.

Restructuring

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Restructuring charges	$8,122	$7,393	$—	10%	100%
Percent of revenue	2 %	2 %	—%		

During the year ended December 31, 2016, we recorded $8.1 million of restructuring expenses, net of credits, consisting of accelerated amortization, impairment charges and losses on disposal of lease-related assets of $20.4 million, and facility exit and severance costs of $2.8 million; partially offset by the release of deferred rent liabilities, net of sublease provision, of $15.1 million related to the exit of certain leased spaces in Redwood City, Chicago, and New York.

During the year ended December 31, 2015, we incurred a $7.4 million restructuring expense. The restructuring charges include $3.5 million in employee severance costs, $0.9 million in real estate broker costs and $3.1 million in asset impairment charges net of the release of deferred rent liabilities related to vacated offices.

On January 9, 2017 we announced a plan to further improve our operational efficiency, which included a reduction of approximately 11% of our workforce. For more information regarding our restructuring expenses, please refer to Note 7 and 16 to our Consolidated Financial Statements in Part II, Item 8, of this Annual Report on Form 10-K.

The total workforce declined from 954 at December 31, 2015 to 851 at December 31, 2016, as we continue to manage our workforce with a goal of achieving improved operating leverage.

Interest and Other Expense

	Years ended December 31,			% Change	
	2016	2015	2014	2016 vs 2015	2015 vs 2014
	(in thousands, except percentages)				
Interest expense	$4,466	$4,563	$3,092	(2)%	48 %
Other (income) expense, net	2,387	3,112	5,267	(23)%	(41)%
Total	$6,853	$7,675	$8,359	(11)%	(8)%

The decrease in interest and other expense during the year ended December 31, 2016 compared to the year ended December 31, 2015 was due to lower foreign currency transaction losses from less unfavorable exchange rate fluctuations.

The change in interest and other expense during the year ended December 31, 2015 compared to the year ended December 31, 2014 was due to lower foreign currency transaction losses following the declines in the Canadian dollar, British pound and the Euro against the U.S. dollar during year ended December 31, 2015 as compared to the year ended December 31, 2014, partially offset by higher interest expense related to additional borrowings under our revolving credit facility, term debt, and more capital leases.

Income Tax (Benefit) Provision

We recorded an income tax provision of $1.1 million and $1.2 million for the years ended December 31, 2016 and 2015, respectively, primarily due to foreign and state income taxes.

Quarterly Results of Operations

Quarterly Results of Operations Data

The following tables set forth our quarterly consolidated statements of operations in dollars and as a percentage of total revenue for each of the eight quarters in the period ended December 31, 2016. We have prepared the quarterly consolidated statements of operations data on a basis consistent with the audited consolidated financial statements included in Part II, Item 8 of 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 that management considers necessary for a fair presentation of this data. This information should be read in conjunction with the audited consolidated financial statements and related notes included in Part II, Item 8 of 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							
	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016	Dec 31, 2015	Sep 30, 2015	Jun 30, 2015	Mar 31, 2015
	(in thousands)							
Consolidated Statements of Operations Data:								
Revenue	$124,830	$109,720	$116,968	$104,745	$125,401	$111,836	$120,065	$104,334
Costs and expenses:								
Media costs	63,595	47,092	50,922	42,559	50,700	43,673	49,155	45,561
Other cost of revenue (1)	21,848	22,790	20,397	20,085	19,980	20,105	19,826	19,956
Research and development (1)	7,364	7,913	9,438	10,639	10,786	11,022	11,791	11,323
Sales and marketing (1)	28,985	29,084	36,190	36,840	39,831	41,681	41,750	42,878
General and administrative (1)	11,119	11,912	12,765	14,321	13,691	12,328	14,761	17,574
Impairment of goodwill	—	—	—	—	—	117,521	—	—
Restructuring	6,555	—	1,766	(199)	922	—	6,471	—
Total costs and expenses	139,466	118,791	131,478	124,245	135,910	246,330	143,754	137,292
Operating loss	(14,636)	(9,071)	(14,510)	(19,500)	(10,509)	(134,494)	(23,689)	(32,958)
Interest expense	1,115	1,082	1,032	1,237	1,090	1,087	1,045	1,340
Other (income) expense, net	1,304	411	866	(194)	803	797	(696)	2,208
Loss before income taxes	(17,055)	(10,564)	(16,408)	(20,543)	(12,402)			