TWITTER, INC.
Form 10-K
February 27, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 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 001-36164

Twitter, Inc.

(Exact name of registrant as specified in its charter)

Delaware	20-8913779
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1355 Market Street, Suite 900

San Francisco, California 94103

(Address of principal executive offices and Zip Code)

(415) 222-9670

(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common Stock, Par Value $0.000005 Per Share	New York Stock Exchange

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

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES NO

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the 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
Non-accelerated filer	(Do not check if a smaller reporting company)	Smaller reporting company

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based on the closing price of a share of the registrant's common stock on June 30, 2016 as reported by the New York Stock Exchange on such date was approximately $10,883,506,044. Shares of the registrant's common stock held by each

executive officer, director and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This calculation does not reflect a determination that certain persons are affiliates of the registrant for any other purpose.

The number of shares of the registrant's common stock outstanding as of February 17, 2017 was 726,894,203.

Portions of the registrant's Definitive Proxy Statement relating to the Annual Meeting of Stockholders are incorporated by reference into 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 after the end of the registrant's fiscal year ended December 31, 2016.

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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, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our ability to attract and retain users and increase the level of engagement, including ad engagement, of our users;
- our ability to develop or acquire new products, product features and services, improve our existing products and services, including with respect to Promoted Tweet product features and video and performance advertising, and increase the value of our products and services;
- our business strategies, plans and priorities, including our plans for growth, investment in and refinement of our core service, including our re-evaluation and potential de-emphasis of certain product features;
- our ability to provide new content from third parties, including our ability to secure live streaming video content on economic and other terms that are acceptable to us;
- our ability to attract advertisers to our platforms, products and services and increase the amount that advertisers spend with us;
- our expectations regarding our user growth and growth rates and the continued usage of our mobile applications;
- our ability to increase our revenue and our revenue growth rate, including by differentiating and scaling revenue products;
    - our ability to improve user monetization, including of our logged out and syndicated audiences;
- our future financial performance, including trends in cost per ad engagement, revenue, cost of revenue, operating expenses and income taxes;
- our expectations regarding outstanding litigation;
- the effects of seasonal trends on our results of operations;
- the sufficiency of our cash and cash equivalents and cash generated from operations to meet our working capital and capital expenditure requirements;
- our ability to timely and effectively scale and adapt our existing technology and network infrastructure;
- our ability to successfully acquire and integrate companies and assets; and
- our ability to successfully enter new markets and to operate internationally.

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.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, operating results, cash flows or prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the section titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

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The forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

NOTE REGARDING KEY METRICS

We review a number of metrics, including monthly active users, or MAUs, changes in daily active users or daily active usage, or DAUs, changes in ad engagements and changes in cost per ad engagement, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions. See the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Metrics” for a discussion of how we calculate MAUs, changes in DAUs, changes in ad engagements and changes in cost per ad engagement.

The numbers of active users presented in this Annual Report on Form 10-K are based on internal company data. While these numbers are based on what we believe to be reasonable estimates for the applicable period of measurement, there are inherent challenges in measuring usage and user engagement across our large user base around the world. For example, there are a number of false or spam accounts in existence on our platform. We have performed an internal review of a sample of accounts and estimate that false or spam accounts represented less than 5% of our MAUs as of December 31, 2016. In making this determination, we applied significant judgment, so our estimation of false or spam accounts may not accurately represent the actual number of such accounts, and the actual number of false or spam accounts could be higher than we have estimated. We are continually seeking to improve our ability to estimate the total number of spam accounts and eliminate them from the calculation of our active users, and in the past have made improvements in our spam detection capabilities that have resulted in the suspension of a large number of accounts. Spam accounts that we have identified are not included in the active user numbers presented in this Annual Report on Form 10-K. We treat multiple accounts held by a single person or organization as multiple users for purposes of calculating our active users because we permit people and organizations to have more than one account. Additionally, some accounts used by organizations are used by many people within the organization. As such, the calculations of our active users may not accurately reflect the actual number of people or organizations using our platform.

Our metrics are also affected by applications that automatically contact our servers for regular updates with no discernible user-initiated action involved, and this activity can cause our system to count the users associated with such applications as active users on the day or days such contact occurs. As of December 31, 2016, approximately 8.5% of users used third party applications that may have automatically contacted our servers for regular updates without any discernible additional user-initiated action. As such, the calculations of our active users presented in this Annual Report on Form 10-K may be affected as a result of this activity.

In addition, our data regarding user geographic location for purposes of reporting the geographic location of our MAUs is based on the IP address or phone number associated with the account when a user initially registered the

account on Twitter. The IP address or phone number may not always accurately reflect a user's actual location at the time such user engaged with our platform. For example, a mobile user may appear to be accessing Twitter from the location of the proxy server that the user connects to rather than from a user's actual location.

We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy. Our measures of user growth and user engagement may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology.

We present and discuss our total audience based on both internal metrics and relying on data from Google Analytics, which measures logged-out visitors to our properties.

PART I

Item 1. BUSINESS

Overview

Twitter is the best and fastest place to see what is happening and what people are talking about all around the world. Every day, instances of breaking news, entertainment, sports, politics, big events and everyday interests happen first on Twitter. Twitter is where the full story unfolds with all the live commentary and where live events come to life unlike anywhere else. Our primary service can be accessed on a variety of mobile devices, at twitter.com and via SMS. In 2016, we focused on positioning Twitter for long-term sustainable growth and making progress toward GAAP profitability. Specifically, we clearly identified who we are—the best and fastest place to see what's happening in the world and what people are talking about. We built and shipped product features that directly improved our key audience growth and engagement metrics. We also simplified the organization to be what we believe is more focused and efficient, and eliminated investment in non-core areas of our business, like Vine, which we shut down in early 2017, and Fabric, which we sold in early 2017. We saw accelerating rates of growth on a year-over-year basis for daily active usage, or DAU, for three quarters in a row. Our advertising business saw increasing competition for advertiser spending and we believe that advertising revenue growth will continue to lag that of audience growth.

In 2017, our focus is building and shipping product changes more rapidly to make Twitter safer. We intend to invest in our core use case and in new product areas — such as live streaming video, among others — that further strengthen Twitter's unique position as the best and fastest place to see and talk about what's happening in the world. We intend to continue integrating new, dynamic, and personalized content as we recognized the importance of simplifying and creating a single destination for people to discover what's happening on Twitter. We also plan to simplify and differentiate our revenue products to drive sustainable long-term revenue growth by working to strengthen our unique value proposition, especially in live and video, that gives advertisers the ability to reach the most engaging audiences in the right context at the right time. We intend to apply the same focused approach that drove renewed monthly and daily usage growth in 2016 to simplify our portfolio and our buying process for advertisers.

Products and Services for Users

Twitter. Our primary service, Twitter, is a global platform for public self-expression and conversation in real time. Twitter allows people to consume, create, distribute and discover content and has democratized content creation and distribution. The reach of Twitter content is not limited to our logged-in users on the Twitter platform, but rather extends to a larger global audience.

The public nature of the Twitter platform allows us and others to extend the reach of Twitter content beyond our properties. Media outlets and our platform partners distribute Tweets beyond our properties to complement their content by making it more timely, relevant and comprehensive. These outlets and partners also add value to our user experience by contributing content to our platform. Many of the world's most trusted media outlets, including the BBC, CNN and the Associated Press, regularly use Twitter as a platform for content distribution.

Periscope. Periscope is a mobile application that lets anyone broadcast and watch video live with others. Periscope broadcasts can also be viewed through Twitter and on desktop or mobile web browser. In 2016, we continued to ship significant product updates, building more of Periscope's technology into Twitter itself, and creating new, immersive

video formats like live 360 video. We also introduced the ability to create and Tweet live video from the Twitter app, powered by Periscope. Pairing Periscope with Twitter gives broadcasters greater distribution (anywhere a Tweet can be displayed, a Periscope can be too) and the ability to integrate into our revenue products. We do not currently monetize videos on Periscope, other than to the extent they can be integrated into our revenue products.

Products and Services for Advertisers

Our Promoted Products enable our advertisers to promote their brands, products and services, amplify their visibility and reach, and extend the conversation around their advertising campaigns. We enable our advertisers to target an audience based on a variety of factors, including a user's Interest Graph. The Interest Graph maps, among other things, interests based on users followed and actions taken on our platform, such as Tweets created and engagement with Tweets. We believe a user's Interest Graph produces a clear and real-time signal of a user's interests, greatly enhancing the relevance of the ads we can display for users and enhancing our targeting capabilities for advertisers. Our Promoted Products are incorporated into our platform as native advertising and are designed to be as compelling and useful to our users as organic content on our platform.

Currently, our Promoted Products (all of which are labeled “promoted” within Twitter) consist of:

- Promoted Tweets. Promoted Tweets appear within a user’s timeline or search results just like an ordinary Tweet regardless of device. Using our proprietary algorithm and understanding of each user’s Interest Graph, we can deliver Promoted Tweets that are intended to be relevant to a particular user. Our goal is to enable advertisers to create and optimize successful marketing campaigns — and pay only for the user actions that are aligned with their marketing objectives. As a result, we have added product features to Promoted Tweets based on advertiser objectives, which may include Tweet engagements (e.g., retweets, replies and likes), app installs or engagements, website clicks or conversions, or video views. We plan to focus our investment in features that differentiate Twitter and capitalize on our unique value proposition for advertisers, including video and more organic ad formats.
- Promoted Accounts. Promoted Accounts appear in the same format and place as accounts suggested by our Who to Follow recommendation engine, or in some cases, in Tweets in a user’s timeline. Promoted Accounts provide a way for our advertisers to grow a community of users who are interested in their business, products or services.
- Promoted Trends. Promoted Trends appear at the top of the list of trending topics for an entire day in a particular country or on a global basis. When a user clicks on a Promoted Trend, search results for that trend are shown in a timeline and a Promoted Tweet created by our advertisers is displayed to the user at the top of those search results. We feature one Promoted Trend per day per geography.

Advertisers can also run short video ads either before (also known as pre-roll ads) or during (also known as mid-roll ads) premium video content, such as our live NFL games, live election debate coverage or clips from a variety of interest categories. Our technology dynamically inserts those advertisers' pre- and mid-roll ads into the relevant videos and delivers the ads to the audience targeted by those advertisers. We may pay content partners a portion of our advertising revenue for the right to use and distribute their content on our platform.

Our technology platform and information database enable us to provide targeting capabilities based on audience attributes like geography, interests, keyword, television conversation, content, event and devices that make it possible for advertisers to promote their brands, products and services, amplify their visibility and reach, and complement and extend the conversation around their advertising campaigns.

Our platform also allows customers to advertise across the mobile ecosystem, both on Twitter’s owned and operated properties as well as off Twitter on third party publishers’ websites, applications and other offerings, across the full user lifecycle — from acquiring new users to engaging existing users. We enable advertisers to extend their reach beyond Twitter through:

- MoPub, our mobile-focused advertising exchange, which combines ad serving, ad network mediation and a real-time bidding exchange into one comprehensive monetization platform.
- Twitter Audience Platform, an advertising offering that enables advertisers to extend their advertising campaigns with Twitter Promoted Products to audiences off Twitter while retaining access to Twitter’s measurement, targeting and creative tools.

Products for Developers

We provide a set of tools, public APIs and embeddable widgets that developers can use to contribute their content to our platform, syndicate and distribute Twitter content across their properties and enhance their websites and applications with Twitter content. Websites integrating with Twitter add value to our user experience. Indeed many applications have been registered by developers to enable them to integrate with our platform, and leverage Twitter content to enhance and extend their applications in new and creative ways. The goal of our platform product development is to make it easy for developers to integrate seamlessly with Twitter.

Products for Data Partners

We offer subscription access to our public data feed for partners who wish to access data beyond our public API, which offers a limited amount of our public data for free. Our data products and services offer more sophisticated data sets and better data enrichments to allow developers and businesses to utilize our public content to derive business insights and build products using the unique content that is shared on Twitter. We plan to take steps to grow our data licensing revenue with a more brand-centric approach to channels, markets, products, and pricing. We believe this approach will position both Twitter and our key channel partners for greater growth and monetization, and we are investing in deeper partnerships with a few select solution providers to help brands realize greater value from our data and platform.

Competition

Our business is characterized by rapid technological change, frequent product innovation and continuously evolving user, advertiser, platform partner and developer preferences and expectations. We face significant competition in every aspect of our business, including from companies that provide tools to facilitate communications and the sharing of information, companies that enable marketers to display advertising, and other online ad networks, exchanges and platforms. We also compete to attract, engage, and retain people who use our products, to attract and retain marketers, and to attract and retain developers to build compelling mobile and web applications that integrate with our products. We have seen escalating competition for digital ad spending and expect this trend to continue. We also compete to attract and retain employees, especially software engineers, designers, and product managers.

We compete with the following companies:

- Companies that offer products that enable everyone to create and share ideas and other content and information. These offerings include, for example, Facebook (including Instagram and WhatsApp) and Google (including YouTube) and Snap, as well as largely regional social media and messaging companies that have strong positions in particular countries. Increasingly, we face competition for live premium video content rights from other digital distributors and traditional television providers, which may limit our ability to secure such content on economic and other terms that are acceptable to us in the future.
- Companies that develop applications, particularly mobile applications, that create, syndicate and distribute content across internet properties.
- Traditional, online, and mobile businesses that enable marketers to reach their audiences and/or develop tools and systems for managing and optimizing advertising campaigns.

As we introduce new products, as our existing products evolve, or as other companies introduce new products and services, we may become subject to additional competition.

Our industry is evolving rapidly and is becoming increasingly competitive. See the sections titled “Risk Factors—If we are unable to compete effectively for users and advertiser spend, our business and operating results could be harmed” and “Risk Factors—We depend on highly skilled personnel to grow and operate our business, and if we are unable to hire, retain and motivate our personnel, we may not be able to grow effectively.”

Technology, Research and Development

Twitter is composed of a set of core, scalable and distributed services that are built from proprietary and open source technologies. These systems are capable of delivering billions of short messages to hundreds of millions of people a day in an efficient and reliable way. We continue to invest in our existing products and services as well as develop new products and services through research and product development.

Sales and Marketing

We have a global sales force and sales support staff that is focused on attracting and retaining advertisers while certain advertisers use our self-serve advertising platform to launch and manage their advertising campaigns. Our sales force and sales support staff assists advertisers throughout the advertising campaign cycle, from pre-purchase decision making to real-time optimizations as they utilize our campaign management tools, and to post-campaign analytics reports to assess the effectiveness of their advertising campaigns. In the fourth quarter of 2016, the company reorganized the company’s sales, partnerships, and marketing efforts, intended to create greater focus and efficiency.

Since our inception, our user base has grown primarily by word-of-mouth. Prior to 2015, we built our brand through these efforts and increased usage of Twitter worldwide with relatively minimal marketing costs. Beginning in 2015, we complemented that organic growth with targeted campaigns to drive new user acquisition. Then, from late 2016, we've shifted some of that focus to brand campaigns to drive awareness of Twitter's unique positioning around “What's Happening Now”.

Intellectual Property

We seek to protect our intellectual property rights by relying on federal, state and common law rights in the United States and other countries, as well as contractual restrictions. We generally enter into confidentiality and invention assignment agreements with our employees and contractors, and confidentiality agreements with other third parties, in order to limit access to, and disclosure and use of, our confidential information and proprietary technology. In addition to these contractual arrangements, we also rely on a combination of trademarks, trade dress, domain names, copyrights, trade secrets and patents to help protect our brand and our other intellectual property.

As of December 31, 2016, we had 1,035 issued patents in the United States and foreign countries relating to message distribution, graphical user interfaces, security and related technologies. Our issued United States patents are expected to expire between 2017 and 2034.

We may be unable to obtain patent or trademark protection for our technologies and brands, and our existing patents and trademarks, and any patents or trademarks that may be issued in the future, may not provide us with competitive advantages or distinguish our products and services from those of our competitors. In addition, any patents and trademarks may be contested, circumvented or found unenforceable or invalid, and we may not be able to prevent third parties from infringing, diluting or otherwise violating them.

In May 2013, we implemented our Innovator’s Patent Agreement, or IPA, which we enter into with our employees and consultants, including our founders. We implemented the IPA because we were concerned about the proliferation of offensive patent lawsuits, including lawsuits by “non-practicing entities.” We are also encouraging other companies to implement the IPA in an effort to reduce the number of patents with offensive rights that may be transferred to third parties, including non-practicing entities. We believe that a reduction in the number of patents with transferrable offensive rights may reduce the number of offensive lawsuits that may be filed, particularly by non-practicing entities.

The IPA limits our ability to prevent infringement of our patents. See the section titled “Risk Factors—Our intellectual property rights are valuable, and any inability to protect them could reduce the value of our products, services and brand” for a further discussion of the IPA.

Companies in the internet, technology and media industries own large numbers of patents, copyrights, trademarks and trade secrets, and frequently enter into litigation based on allegations of infringement, misappropriation, or other violations of intellectual property or other rights. In addition, various “non-practicing entities” that own patents and other intellectual property rights often attempt to aggressively assert their rights in order to extract value from technology companies. We are presently involved in a number of intellectual property lawsuits, and from time to time we face, and we expect to face in the future, allegations that we have infringed or otherwise violated the patents, copyrights, trademarks, trade secrets, and other intellectual property rights of third parties, including our competitors and non-practicing entities. As we face increasing competition, we will likely face more intellectual property-related claims and litigation matters. For additional information, see the sections titled “Risk Factors—We are currently, and expect to be in the future, party to intellectual property rights claims that are expensive and time consuming to defend, and, if resolved adversely, could have a significant impact on our business, financial condition or operating results” and “Legal Proceedings.”

Government Regulation

We are subject to a number of U.S. federal and state and foreign laws and regulations that involve matters central to our business. These laws and regulations may involve privacy, rights of publicity, data protection, content regulation, intellectual property, competition, protection of minors, consumer protection, taxation or other subjects. Many of these laws and regulations are still evolving and being tested in courts and could be interpreted in ways that could harm our business. In addition, the application and interpretation of these laws and regulations often are uncertain, particularly in the new and rapidly evolving industry in which we operate.

We are also subject to federal, state and foreign laws regarding privacy and the protection of user data. Foreign data protection, privacy, consumer protection, content regulation and other laws and regulations are often more restrictive than those in the United States. There are also a number of legislative proposals pending before the U.S. Congress, various state legislative bodies and foreign governments concerning data protection that could affect us. For example, regulation relating to the General Data Protection Regulation has been adopted by European legislative bodies that will be effective in May 2018 and will include more stringent operational requirements for entities processing personal information and significant penalties for non-compliance.

In March 2011, to resolve an investigation into various incidents, we entered into a settlement agreement with the Federal Trade Commission, or FTC, that, among other things, requires us to establish an information security program designed to protect non-public consumer information and also requires that we obtain biennial independent security assessments. The FTC investigation was the result of two separate incidents in which unauthorized intruders obtained administrative passwords of certain Twitter employees. In one of the incidents, the intruder accessed the employee's administrative capabilities to fraudulently reset various user passwords and post unauthorized Tweets. The obligations under the settlement agreement remain in effect until the later of March 2, 2031, or the date 20 years after the date, if any, on which the U.S. government or the FTC files a complaint in federal court alleging any violation of the order. Violation of existing or future regulatory orders, settlements, or consent decrees could subject us to substantial monetary fines and other penalties that could negatively affect our financial condition and results of operations.

Twitter users may be restricted from accessing Twitter from certain countries, and other countries have intermittently restricted access to Twitter. For example, Twitter is not directly accessible in China and has been blocked in the past in Turkey. It is possible that other governments may seek to restrict access to or block our website or mobile applications, censor content available through our products or impose other restrictions that may affect the accessibility or usability of Twitter for an extended period of time or indefinitely. For instance, some countries have enacted laws that allow websites to be blocked for hosting certain types of content.

For additional information, see the section titled "Risk Factors—Our business is subject to complex and evolving U.S. and foreign laws and regulations. These laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations or declines in user growth, user engagement or ad engagement, or otherwise harm our business."

Information about Segment and Geographic Revenue

Information about segment and geographic revenue is set forth in Note 17 of the Notes to Consolidated Financial Statements under Item 8 of this Annual Report on Form 10-K.

Employees

As of December 31, 2016, we had 3,583 full-time employees.

Corporate Information

We were incorporated in Delaware in April 2007. Our principal executive offices are located at 1355 Market Street, Suite 900, San Francisco, California 94103, and our telephone number is (415) 222-9670. We completed our initial public offering in November 2013 and our common stock is listed on the New York Stock Exchange under the symbol "TWTR." Unless the context requires otherwise, the words "Twitter," "we," "Company," "us" and "our" refer to Twitter, Inc. a our wholly owned subsidiaries.

Available Information

Our website is located at www.twitter.com, and our investor relations website is located at http://investor.twitterinc.com/. Copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available, free of charge, on our investor relations website as soon as reasonably practicable after we file such material electronically with or furnish it to the Securities and Exchange Commission, or the SEC. The SEC also maintains a website that contains our SEC filings. The address of the site is www.sec.gov. Further, a copy of this Annual Report on Form 10-K is located at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330.

We webcast our earnings calls and certain events we participate in or host with members of the investment community on our investor relations website. Additionally, we provide notifications of news or announcements regarding our financial performance, including SEC filings, investor events, press and earnings releases, and blogs as part of our investor relations website. We have used, and intend to continue to use, our investor relations website, as well as certain Twitter accounts (@jack, @twitter and @twitterIR), as means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. Further corporate governance information, including our certificate of incorporation, bylaws, corporate governance guidelines, board committee charters, and code of business conduct and ethics, is also available on our investor relations website under the heading "Corporate governance." The contents of our websites are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

Item 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Annual Report on Form 10-K, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, before making a decision to invest in our common stock. The risks and uncertainties described below may not be the only ones we face. If any of the risks actually occurs, our business, financial condition, operating results, cash flows and prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business and Our Industry

If we fail to grow our user base, or if user engagement or ad engagement on our platform decline, our revenue, business and operating results may be harmed.

The size of our user base and our users' level of engagement are critical to our success. We had 319 million average MAUs in the three months ended December 31, 2016, representing a 4% increase from 305 million average MAUs in the three months ended December 31, 2015. DAU for the three months ended December 31, 2016 grew 11% year over year. Our financial performance has been and will continue to be significantly determined by our success in growing the number of users and increasing their overall level of engagement on our platform as well as the number of ad engagements; however, we expect revenue growth will lag behind user growth. We anticipate that our user growth rate will continue to slow over time as the size of our user base increases. For example, in general, a higher proportion of Internet users in the United States uses Twitter than Internet users in other countries and, in the future, we expect our user growth rate in certain international markets, such as Canada, France, Germany, India, Japan, Mexico, the Philippines, Saudi Arabia, and South Korea, to continue to be higher than our user growth rate in the United States. To the extent our logged-in user growth rate slows, our success will become increasingly dependent on our ability to increase levels of ad engagement on Twitter and monetizing our total audience on logged-out usage and syndicated properties as well as increasing revenue growth from the sale to advertisers of our advertising products which we place on Twitter properties and third party publishers' websites, applications and other offerings. We generate a substantial majority of our revenue based upon engagement by our users with the ads that we display. If people do not perceive our products and services to be useful, reliable and trustworthy, we may not be able to attract users or increase the frequency of their engagement with our platform and the ads that we display. A number of consumer-oriented websites that achieved early popularity have seen their user bases or levels of engagement decline, in some cases precipitously. There is no guarantee that we will not experience a similar erosion of our user base or engagement levels. A number of factors could potentially negatively affect user growth and engagement, including if:

- users, including influential users, such as world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands or certain age demographics, engage with other products, services or activities as an alternative to ours;
- we are unable to convince potential or new users of the value and usefulness of our products and services;
- there is a decrease in the perceived quantity, quality, usefulness or relevance of the content generated by our users;
- there are user concerns related to privacy and communication, safety, security, spam or other hostile or inappropriate usage or other factors;
- we fail to introduce new and improved products or services or if we introduce new or improved products or services that are not favorably received or that negatively affect user engagement;
- technical or other problems prevent us from delivering our products or services in a rapid and reliable manner or otherwise affect the user experience, including issues with connecting to the Internet;
- users have difficulty installing, updating, or otherwise accessing our products or services on mobile devices as a result of actions by us or third parties that we rely on to distribute our products and deliver our services;
- we are unable to manage and prioritize information to ensure users are presented with content that is interesting, useful and relevant to them;
- users believe that their experience is diminished as a result of the decisions we make with respect to the frequency, relevance and prominence of ads that we display;
- there are adverse changes in our products or services that are mandated by, or that we elect to make to address, legislation, regulatory authorities or litigation, including settlements or consent decrees;
- we fail to provide adequate customer service to users; or
- we do not maintain our brand image or our reputation is damaged.

We believe that returning to meaningful MAU growth is dependent on improving our product and feature offerings to demonstrate our value proposition to a larger audience. If we are unable to increase our user base, user growth rate or

user engagement, or if these metrics decline, our products and services could be less attractive to potential new users, as well as to advertisers, content partners and platform partners, which would have a material and adverse impact on our business, financial condition and operating results.

If our users or content partners do not continue to contribute content or such content is not viewed as unique or engaging by other users, we may experience a decline in the number of users accessing our products and services and user engagement, which could result in the loss of content partners, advertisers, platform partners and revenue.

Our success depends on our ability to provide users of our products and services with unique and engaging content, which in turn depends on the content contributed by our users. We believe that one of our competitive advantages is the quality, quantity and real-time nature of the content on Twitter, and that access to unique or real-time content is one of the main reasons users visit Twitter. We seek to foster a broad and engaged user community, and we encourage world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands to use our products and services to express their views to broad audiences. We also encourage media outlets to use our products and services to distribute their content. In addition, we license our premium live streaming video content from a variety of content providers. If these content providers are no longer willing or able to license us content upon economic and other terms that are acceptable to us, our ability to stream such content will be adversely affected and/or our costs could increase. If users, including influential users, do not continue to contribute content or content providers do not license content to Twitter, and we are unable to provide users with unique, engaging and timely content, our user base and user engagement may decline. Additionally, if we are not able to address user concerns regarding the safety and security of our products and services or if we are unable to successfully prevent abusive or other hostile behavior on our platform, the size of our user base and user engagement may decline. We rely on the sale of advertising services for the substantial majority of our revenue and a decline in the number of users, user growth rate, or user engagement, including as a result of the loss of world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands who generate content on Twitter, advertisers may deter new advertisers from using our products or services or cause current advertisers to reduce their spending with us or cease doing business with us, which would harm our business and operating results.

We generate the substantial majority of our revenue from advertising. The loss of advertising revenue could harm our business.

The substantial majority of our revenue is currently generated from third parties advertising on Twitter. We generated approximately 90% and 89% of our revenue from advertising in the fiscal years ended December 31, 2015 and 2016, respectively. We generate substantially all of our advertising revenue through the sale of our three Promoted Products: Promoted Tweets, Promoted Accounts and Promoted Trends. As is common in our industry, our advertisers do not have long-term advertising commitments with us. In addition, many of our advertisers purchase our advertising services through one of several large advertising agency holding companies. To sustain or increase our revenue, we must add new advertisers and encourage existing advertisers to maintain or increase the amount of advertising inventory purchased through our platform and adopt new features and functionalities that we add to our platform. However, advertising agencies and potential new advertisers may view our Promoted Products or any new products or services as experimental and unproven, and we may need to devote additional time and resources to educate them about our products and services. Advertisers also may choose to reach users through our free products and services, instead of our Promoted Products. Advertisers will not continue to do business with us, or they will reduce the prices they are willing to pay to advertise with us, if we do not deliver ads in an effective manner, or if they do not believe that their investment in advertising with us will generate a competitive return on investment relative to alternatives, including online, mobile and traditional advertising platforms. In addition, competition for advertising is becoming increasingly more intense and our advertising revenue could be further impacted by escalating competition for digital ad spending as well as the re-evaluation of our revenue product feature portfolio, which could result in the de-emphasis of certain product features. Since our initial public offering, our revenue growth has been primarily driven by increases in the number of our users and increases in our ad load driven by strong advertiser demand as well as other factors. To date, our available advertising inventory has been greater than demand. Our future revenue growth, however, may be limited by available advertising inventory for specific ad types on certain days if we do not increase the number of our users, their engagement or monetize our larger global audience. Our advertising revenue

could be adversely affected by a number of other factors, including:

- decreases in user engagement with the ads on our platform and those that we serve off of our platform;
- decreases in the size of our user base or user growth rate;
- if we are unable to demonstrate the value of our Promoted Products to advertisers and advertising agencies or if we are unable to measure the value of our Promoted Products in a manner which advertisers and advertising agencies find useful;
- if we are unable to demonstrate the value of or attract video and video advertisements on our platform;

- if our Promoted Products are not cost effective or not valued by certain types of advertisers or if we are unable to develop cost effective or valuable advertising services for different types of advertisers;
- if we are unable to convince advertisers and brands to invest resources in learning to use our products and services and maintaining a brand presence on Twitter;
- our advertisers' ability to optimize their campaigns or measure the results of their campaigns;
- product or service changes we may make that change the frequency or relative prominence of ads displayed on Twitter or that detrimentally impact revenue in the near term with the goal of achieving long term benefits;
- our inability to increase advertiser demand and spend from new and existing advertisers as well as advertising inventory;
- our inability to increase the relevance of ads shown to users;
- our inability to help advertisers effectively target ads, including as a result of the fact that we do not collect extensive personal information from our users and that we do not have real-time geographic information for all of our users particularly for ads served through our app mobile-focused advertising exchange;
- decreases in the cost per ad engagement;
- failure to effectively monetize our growing international user base, our logged-out audience or our syndicated audience;
- loss of advertising market share to our competitors;
- the degree to which users access Twitter content through applications that do not contain our ads;
- any arrangements or other partnerships with third parties to share our revenue;
- our new advertising strategies do not gain traction;
- the impact of new technologies that could block or obscure the display of our ads;
- adverse legal developments relating to advertising or measurement tools related to the effectiveness of advertising, including legislative and regulatory developments, and developments in litigation;
- our inability to create new products, product features and services that sustain or increase the value of our advertising services to both our advertisers and our users;
- changes to our products or development of new products or product features that decrease users' ad engagements or limit the types of user interactions that we count as ad engagements;
- the impact of fraudulent clicks or spam on our Promoted Products and our users;
- changes in the way our advertising is priced; and
- the impact of macroeconomic conditions and conditions in the advertising industry in general.

The occurrence of any of these or other factors could result in a reduction in demand for our ads, which may reduce the prices we receive for our ads, either of which would negatively affect our revenue and operating results.

If we are unable to compete effectively for users and advertiser spend, our business and operating results could be harmed.

Competition for users of our products and services is intense. Although we have developed a global platform that we believe is the best and fastest place to see what's happening and what people are talking about all around the world, we face strong competition in our business. We compete against many companies to attract and engage users, including companies which have greater financial resources and substantially larger user bases, such as Facebook (including Instagram and WhatsApp), Google (including YouTube), Microsoft (including LinkedIn), Snap and Yahoo, which offer a variety of Internet and mobile device-based products, services and content. For example, Facebook operates a social networking site with significantly more users than Twitter and has been introducing features similar to those of Twitter. In addition, Google may use its strong position in one or more markets to gain a competitive advantage over us in areas in which we operate, including by integrating competing features into products or services they control. As a result, our competitors may draw users towards their products or services and away from ours. This could decrease the growth or engagement of our user base, which, in turn, would negatively affect our business. We also compete against largely regional social media and messaging companies that have strong positions in particular countries such as Kakao and Line.

We believe that our ability to compete effectively for users depends upon many factors both within and beyond our control, including:

- the popularity, usefulness, ease of use, performance and reliability of our products and services compared to those of our competitors;
- the amount, quality and timeliness of content generated by our users;
- the timing and market acceptance of our products and services;
- our ability, in and of itself and in comparison to the ability of our competitors, to develop new products and services and enhancements to existing products and services;
- the frequency and relative prominence of the ads displayed by us or our competitors;
- our ability to establish and maintain relationships with content partners;
- our ability to develop a reliable, scalable, secure, high-performance technology infrastructure that can efficiently handle increased usage globally;
- changes mandated by, or that we elect to make to address, legislation, regulatory authorities or litigation, including settlements and consent decrees, some of which may have a disproportionate effect on us;
- the application of antitrust laws both in the United States and internationally;
- the continued adoption of our products and services internationally;
- our ability to establish and maintain relationships with platform partners that integrate with our platform;
- acquisitions or consolidation within our industry, which may result in more formidable competitors; and
- our reputation and brand strength relative to our competitors.

We also face significant competition for advertiser spend. The substantial majority of our revenue is currently generated through third parties advertising on Twitter, and we compete against online and mobile businesses, including those referenced above, and traditional media outlets, such as television, radio and print, for advertising budgets. In addition, many advertisers, particularly branded advertisers, use marketing mix analyses to determine how to allocate their advertising budgets on an annual or bi-annual basis. Accordingly, if we fail to demonstrate to such advertisers during the appropriate time period that we provide a better return on investment than our competitors do, we may lose the opportunity to secure, increase or sustain our share of the advertising budget allocated for a significant portion of the year until the next budget cycle.

We also compete with advertising networks, exchanges, demand side platforms and other platforms, such as Google AdSense, DoubleClick Ad Exchange, Yahoo Ad Exchange, AOL's Ad.com and Microsoft Media Network, for marketing budgets and in the development of the tools and systems for managing and optimizing advertising campaigns. In order to grow our revenue and improve our operating results, we must increase our share of spending on advertising relative to our competitors, many of which are larger companies that offer more traditional and widely accepted advertising products. In addition, some of our larger competitors have substantially broader product or service offerings and leverage their relationships based on other products or services to gain additional share of advertising budgets.

We believe that our ability to compete effectively for advertiser spend depends upon many factors both within and beyond our control, including:

- the size and composition of our user base relative to those of our competitors;
- our ad targeting and measurement capabilities, and those of our competitors;
- the timing and market acceptance of our advertising services, and those of our competitors;
- our marketing and selling efforts, and those of our competitors;
- the pricing of our Promoted Products relative to the advertising products and services of our competitors;
- the actual or perceived return our advertisers receive from our advertising services, and those of our competitors; and
- our reputation and the strength of our brand relative to our competitors.

In recent years, there have been significant acquisitions and consolidation by and among our actual and potential competitors. We anticipate this trend of consolidation will continue, which will present heightened competitive challenges for our business. Acquisitions by our competitors may result in reduced functionality of our products and services. For example, following Facebook's acquisition of Instagram, Facebook disabled Instagram's photo integration with Twitter such that Instagram photos were no longer viewable within Tweets and users are instead re-directed to Instagram to view Instagram photos through a link within a Tweet. As a result, our users may be less likely to click on links to Instagram photos in Tweets, and Instagram users may be less likely to Tweet or remain active users of Twitter. Any similar elimination of integration with Twitter in the future, whether by Facebook or others, may adversely impact our business and operating results.

Consolidation may also enable our larger competitors to offer bundled or integrated products that feature alternatives to our platform. Reduced functionality of our products and services, or our competitors' ability to offer bundled or integrated products that compete directly with us, may cause our user growth, user engagement and ad engagement to decline and advertisers to reduce their spend with us.

If we are not able to compete effectively for users and advertiser spend our business and operating results would be materially and adversely affected.

Our operating results may fluctuate from quarter to quarter, which makes them difficult to predict.

Our quarterly operating results have fluctuated in the past and will fluctuate in the future. As a result, our past quarterly operating results are not necessarily indicators of future performance. Our operating results in any given quarter can be influenced by numerous factors, many of which we are unable to predict or are outside of our control, including:

- our ability to grow our user base and user engagement;
- our ability to attract and retain advertisers, content partners and platform partners;
- the occurrence of planned significant events, such as the World Cup, Super Bowl, Champions League Final, World Series, Olympics and the Oscars, or unplanned significant events, such as natural disasters and political revolutions;
- the pricing of our products and services;

- the development and introduction of new products or services or changes in features of existing products or services;
- the impact of competitors or competitive products and services;

- our ability to maintain or increase revenue;
- our ability to maintain or improve gross margins and operating margins;
- increases in research and development, marketing and sales and other operating expenses that we may incur to grow and expand our operations and to remain competitive;
- stock-based compensation expense;
- costs related to the acquisition of businesses, talent, technologies or intellectual property, including potentially significant amortization costs;
- system failures resulting in the inaccessibility of our products and services;
- breaches of security or privacy, and the costs associated with remediating any such breaches;
- adverse litigation judgments, settlements or other litigation-related costs, and the fees associated with investigating and defending claims;
- changes in the legislative or regulatory environment, including with respect to security, privacy or enforcement by government regulators, including fines, orders or consent decrees;
- fluctuations in currency exchange rates and changes in the proportion of our revenue and expenses denominated in foreign currencies;
- changes in U.S. generally accepted accounting principles; and
- changes in global business or macroeconomic conditions.

Given our limited operating history and the rapidly evolving markets in which we compete, our historical operating results may not be useful to you in predicting our future operating results. As our revenue growth rate slows, we expect that the seasonality in our business may become more pronounced and may in the future cause our operating results to fluctuate. For example, advertising spending is traditionally seasonally strong in the fourth quarter of each year and we believe that this seasonality affects our quarterly results, which generally reflect higher sequential advertising revenue growth from the third to fourth quarter compared to sequential advertising revenue growth from the fourth quarter to the subsequent first quarter. In addition, global economic concerns continue to create uncertainty and unpredictability and add risk to our future outlook. An economic downturn in any particular region in which we do business or globally could result in reductions in advertising revenue, as our advertisers reduce their advertising budgets, and other adverse effects that could harm our operating results.

We depend on highly skilled personnel to grow and operate our business, and have seen high levels of attrition. If we are unable to hire, retain and motivate our personnel, we may not be able to grow effectively.

Our future success and strategy will depend upon our continued ability to identify, hire, develop, motivate and retain highly skilled personnel, including senior management, engineers, designers and product managers. We depend on contributions from our employees, and in particular our senior management team, to execute efficiently and effectively. We do not have employment agreements other than offer letters with any member of our senior management or other key employee, and we do not maintain key person life insurance for any employee. We also face significant competition for employees, particularly in the San Francisco Bay Area (where our headquarters is located), for engineers, designers and product managers from other Internet and high-growth companies, which include both publicly-traded and privately-held companies. As a result, we may not be able to retain our existing employees or hire new employees quickly enough to meet our needs. At the same time, we are also experiencing high voluntary attrition, and the resulting influx of new leaders and other employees requires that we expend the time and resources necessary to recruit and retain talent, restructure our organizations, and train new employees. In addition, to attract highly and retain skilled personnel, we have had to offer, and believe we will need to continue to offer, highly competitive compensation packages. Identifying, recruiting, training and integrating qualified individuals will require significant time, expense and attention. We may need to invest significant amounts of cash and equity to attract and retain new employees and we may never realize returns on these investments. In addition, changes to U.S. immigration and work authorization laws and regulations can be significantly affected by political forces and levels of economic activity. Our business may be materially adversely affected if legislative or administrative changes to immigration or visa laws and regulations impair our hiring processes or projects involving personnel who are not citizens of the country where

the work is to be performed. If we are not able to effectively attract and retain employees, we may not be able to innovate or execute quickly on our strategy and our ability to achieve our strategic objectives will be adversely impacted, and our business will be harmed.

We also believe that our culture and core values have been and will continue to be a key contributor to our success and our ability to foster the innovation, creativity and teamwork we believe we need to support our operations. As we continue to evolve, however, we are subject to the risks of over-hiring and over-compensating our employees, and to the challenges of integrating, developing and motivating an employee base that is located in various countries around the world. If we fail to effectively manage our hiring needs and successfully integrate our new hires, our efficiency and ability to meet our forecasts and our culture, employee morale, productivity and retention could suffer, and our business and operating results could be adversely affected.

If we fail to monetize effectively in international markets, our revenue and our business will be harmed.

We may not be able to monetize our products and services internationally as effectively as in the United States as a result of competition, advertiser demand, differences in the digital advertising market and digital advertising conventions, as well as differences in the way that users in different countries access or utilize our products and services. For example, a significant portion of users in emerging markets like India and Pakistan use feature phones and communicate via SMS messaging, both of which have limited functionality and neither of which may be able to take full advantage of our products and services offered on smartphone or our website or desktop applications. Users who access Twitter through SMS messaging may monetize at lower rates than other users. Differences in the competitive landscape in international markets may impact our ability to monetize our products and services. For example, in South Korea we face intense competition from a messaging service offered by Kakao, which offers some of the same communication features as Twitter. The existence of a well-established competitor in an international market may adversely affect our ability to increase our user base, attract content partners, advertisers and platform partners and monetize our products in such market. We may also experience differences in advertiser demand in international markets. For example, during times of political upheaval, advertisers may choose not to advertise on Twitter. Certain international markets are also not as familiar with digital advertising in general, or in new forms of digital advertising such as our Promoted Products. Further, we face challenges in providing certain advertising products, features or analytics in certain international markets, such as the European Union, due to government regulation. Our products and services may also be used differently abroad than in the United States. In particular, in certain international markets where Internet access is not as rapid or reliable as in the United States, users tend not to take advantage of certain features of our products and services, such as rich media included in Tweets, video or live streaming video. The limitation of mobile devices of users in emerging and other markets limits our ability to deliver certain features to those users and may limit the ability of advertisers to deliver compelling advertisements to users in these markets which may result in reduced ad engagements which would adversely affect our business and operating results.

If our revenue from our international operations, and particularly from our operations in the countries and regions where we have focused our spending, does not exceed the expense of establishing and maintaining these operations, our business and operating results will suffer. In addition, our user base may expand more rapidly in international regions where we are less successful in monetizing our products and services. As our user base continues to expand internationally, we will need to increase revenue from the activity generated by our international users in order to grow our business. For example, users outside the United States constituted 79% of our average MAUs in the three months ended December 31, 2016, but our international revenue, as determined based on the billing location of our advertisers, was only 39% of our consolidated revenue in the three months ended December 31, 2016. Our inability to successfully expand our business internationally could adversely affect our business, financial condition and operating results.

User growth and engagement depend upon effective interoperation with operating systems, networks, devices, web browsers and standards that we do not control.

We make our products and services available across a variety of operating systems and through websites. We are dependent on the interoperability of our products and services with popular devices, desktop and mobile operating systems and web browsers that we do not control, such as Mac OS, Windows, Android, iOS, Chrome and Firefox. Any changes, bugs or technical issues in such systems, devices or web browsers that degrade the functionality of our products and services, make it difficult for our users to access our content, limit our ability to target or measure the effectiveness of ads, impose fees related to our products or services or give preferential treatment to competitive products or services could adversely affect usage of our products and services. Further, if the number of platforms for which we develop our product expands, it will result in an increase in our operating expenses. In order to deliver high quality products and services, it is important that our products and services work well with a range of operating systems, networks, devices, web browsers and standards that we do not control. In addition, because a majority of our users access our products and services through mobile devices, we are particularly dependent on the interoperability of our products and services with mobile devices and operating systems. We may not be successful in developing relationships with key participants in the mobile industry or in developing products or services that operate effectively with these operating systems, networks, devices, web browsers and standards. In the event that it is difficult for our users to access and use our products and services, particularly on their mobile devices, our user growth and engagement could be harmed, and our business and operating results could be adversely affected.

Our ability to convince potential and new users of the value of our products and services is critical to increasing our user base and to the success of our business.

We have developed a global platform that we believe is the best and fastest place to see what’s happening and what people are talking about all around the world, but the market for our products and services is relatively new and may not develop as expected, if at all. Despite our efforts to reduce barriers to consumption, people who are not our users may not understand the value of our products and services and new users may initially find our product confusing, which may make retention of such users more difficult. There may be a perception that our products and services are only useful to users who Tweet, or to influential users with large audiences. Convincing potential and new users of the value of our products and services is critical to increasing our user base and to the success of our business.

If we fail to educate potential users and potential advertisers about the value of our products and services, if the market for our platform does not develop as we expect or if we fail to address the needs of this market, our business will be harmed. We may not be able to successfully address these risks and challenges or others. Failure to adequately address these risks and challenges could harm our business and cause our operating results to suffer.

We have incurred significant operating losses in the past, and we may not be able to achieve or subsequently maintain profitability.

Since our inception, we have incurred significant operating losses, and, as of December 31, 2016, we had an accumulated deficit of $2.55 billion. Although our revenue has grown rapidly, increasing from $664.9 million in 2013 to $2.53 billion in 2016, we expect that our revenue growth rate will slow in the future as a result of a variety of factors, including the decline in the growth rate of our user base. We believe that our future revenue growth will depend on, among other factors, our ability to attract new users, increase user engagement and ad engagement, increase our brand awareness, compete effectively, maximize our sales efforts, demonstrate a positive return on investment for advertisers, and successfully develop new products and services. Accordingly, you should not rely on the revenue growth of any prior quarterly or annual period as an indication of our future performance. Our costs may increase in future periods as we continue to expend substantial financial resources on:

- our technology infrastructure;
- research and development for our products and services;
- sales and marketing;
- attracting and retaining talented employees;
- strategic opportunities, including commercial relationships and acquisitions; and
- general administration, including personnel costs and legal and accounting expenses related to being a public company.

These investments may not result in increased revenue or growth in our business. If we are unable to generate adequate revenue growth and to manage our expenses, we may continue to incur significant losses in the future and may not be able to achieve or maintain profitability.

Our business depends on continued and unimpeded access to our products and services on the Internet by our users, content partners, advertisers, and platform partners. If we or our users experience disruptions in Internet service or if Internet service providers are able to block, degrade or charge for access to our products and services, we could incur additional expenses and the loss of users and advertisers.

We depend on the ability of our users, content partners, advertisers and platform partners to access the Internet. Currently, this access is provided by companies that have significant market power in the broadband and Internet access marketplace, including incumbent telephone companies, cable companies, mobile communications companies, government-owned service providers, device manufacturers and operating system providers, any of whom could take actions that degrade, disrupt or increase the cost of user access to our products or services, which would, in turn, negatively impact our business. The adoption of any laws or regulations that adversely affect the growth, popularity or use of the Internet, including laws or practices limiting Internet neutrality, could decrease the demand for, or the usage of, our products and services, increase our cost of doing business and adversely affect our operating results. For example, access to Twitter is blocked in China and has been intermittently blocked in Turkey in the last three years. We also rely on other companies to maintain reliable network systems that provide adequate speed, data capacity and security to us and our users. As the Internet continues to experience growth in the number of users, frequency of use and amount of data transmitted, the Internet infrastructure that we and our users rely on may be unable to support the demands placed upon it. The failure of the Internet infrastructure that we or our users rely on, even for a short period of time, could undermine our operations and harm our operating results.

Our new products, product features, services and initiatives and changes to existing products, services and initiatives could fail to attract users, content partners, advertisers and platform partners or generate revenue.

Our industry is subject to rapid and frequent changes in technology, evolving customer needs and the frequent introduction by our competitors of new and enhanced offerings. We must constantly assess the playing field and determine whether we need to improve or re-allocate resources amongst our existing products and services or create new ones (independently or in conjunction with third parties). Our ability to increase the size and engagement of our user base, attract content partners, advertisers and platform partners and generate revenue will depend on those decisions. We may introduce significant changes to our existing products and services or develop and introduce new and unproven products and services, including technologies with which we have little or no prior development or operating experience. For example, in 2015, we introduced Periscope, a mobile application that lets users share and experience live video from their mobile phones and in 2013, we introduced Vine, a mobile application that enables users to create and distribute videos that are up to six seconds in length, which we discontinued in January 2017 but transitioned certain product features to the Vine Camera app. Also, we recently introduced new features to Twitter such as “Moments”, a curated collection of Tweets, photos, videos, and Periscope broadcasts about current news stories or events; “In Case You Missed It,” which surfaces Tweets a logged-in user may have missed since last accessing Twitter; and Instant Timeline, which helps create a timeline for new users as well as new features to our Promoted Tweets like promoted video ads. If new or enhanced products, product features or services fail to engage users, content partners and advertisers, we may fail to attract or retain users or to generate sufficient revenue or operating profit to justify our investments, and our business and operating results could be adversely affected. In addition, we have launched and expect to continue to launch strategic initiatives that do not directly generate revenue but which we believe will enhance our attractiveness to users, content partners and advertisers. In the future, we may invest in new products, product features, services and initiatives to generate revenue, but there is no guarantee these approaches will be successful. We may not be successful in future efforts to generate revenue from our new products or services. If our strategic initiatives do not enhance our ability to monetize our existing products and services or enable us to develop new approaches to monetization, we may not be able to maintain or grow our revenue or recover any associated development costs and our operating results could be adversely affected.

If we fail to effectively manage changes to our business and operations, our business and operating results could be harmed.

Providing our products and services to our users is costly and we expect certain of our expenses to continue to increase in the future as we broaden our user base and increase user engagement, as users increase the amount of content they contribute, and as we develop and implement new features, products and services that require more infrastructure, in particular our video product features. In addition, our operating expenses, such as our research and development expenses and sales and marketing expenses, have grown rapidly as we have expanded our business. Historically, our costs have increased each year due to these factors and we expect to continue to incur increasing costs to support our operations. We expect to continue to invest in our infrastructure so that we can provide our products and services rapidly and reliably to users around the world, including in countries where we do not expect significant near-term monetization.

In the fourth quarter of 2016, we implemented a restructuring and reduction in force to continue to better align our operating expenses with our revenue, manage our costs better, and more efficiently manage our business. We intend to fully invest in our highest priorities, while eliminating investment in noncore areas. Finding and maintaining the appropriate balance will require significant expenditures and allocation of valuable management resources. If we fail to achieve the necessary level of efficiency in our organization, our business, operating results and financial condition would be harmed.

We focus on product innovation and user engagement rather than short-term operating results.

We encourage employees to quickly develop and help us launch new and innovative features. We focus on improving the user experience for our products and services, which includes protecting user privacy, and on developing new and improved products and services for the advertisers on our platform. We prioritize innovation and the experience for users and advertisers on our platform over short-term operating results. We frequently make product, product feature and service decisions that may reduce our short-term operating results if we believe that the decisions are consistent with our goals to improve the user experience and performance for advertisers, which we believe will improve our operating results over the long term. For example, we are investing in our new live-streaming video experiences, and we may not successfully monetize such experiences. These decisions may not be consistent with the short-term expectations of investors and may not produce the long-term benefits that we expect, in which case our user growth and user engagement, our relationships with advertisers and our business and operating results could be harmed. In addition, our focus on the user experience may negatively impact our relationships with our existing or prospective advertisers. This could result in a loss of advertisers, which could harm our revenue and operating results.

Our business and operating results may be harmed by a disruption in our service, or by our failure to timely and effectively scale and adapt our existing technology and infrastructure.

One of the reasons people come to Twitter is for real-time information. We have experienced, and may in the future experience, service disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors, hardware failure, capacity constraints due to an overwhelming number of people accessing our products and services simultaneously, computer viruses and denial of service or fraud or security attacks. For instance, in January 2016, we experienced a brief service outage during which Twitter.com and Twitter mobile clients were inaccessible as a result, in part, of a software misconfiguration in one of our infrastructure components. Additionally, although we are investing significantly to improve the capacity, capability and reliability of our infrastructure, we are not currently serving traffic equally through our co-located data centers that support our platform. Accordingly, in the event of a significant issue at the data center supporting most of our network traffic, some of our products and services may become inaccessible to the public or the public may experience difficulties accessing our products and services. Any disruption or failure in our infrastructure could hinder our ability to handle existing or increased traffic on our platform, which could significantly harm our business.

As the number of our users increases and our users generate more content, including photos and videos hosted by Twitter, we may be required to expand and adapt our technology and infrastructure to continue to reliably store, serve and analyze this content. It may become increasingly difficult to maintain and improve the performance of our products and services, especially during peak usage times, as our products and services become more complex and our user traffic increases. In addition, because we lease our data center facilities, we cannot be assured that we will be able to expand our data center infrastructure to meet user demand in a timely manner, or on favorable economic terms. If our users are unable to access Twitter or we are not able to make information available rapidly on Twitter, users may seek other channels to obtain the information, and may not return to Twitter or use Twitter as often in the future, or at all. This would negatively impact our ability to attract users, content partners and advertisers and increase engagement of our users. We expect to continue to make significant investments to maintain and improve the capacity, capability and reliability of our infrastructure. To the extent that we do not effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and infrastructure to accommodate actual and anticipated changes in technology, our business and operating results may be harmed.

If we are unable to maintain and promote our brand, our business and operating results may be harmed.

We believe that maintaining and promoting our brand is critical to expanding our base of users, content partners and advertisers. Maintaining and promoting our brand will depend largely on our ability to continue to provide useful, reliable and innovative products and services with a focus on a positive user experience, which we may not do successfully. We may introduce new features, products, services or terms of service that users, content partners, advertisers or platform partners do not like, which may negatively affect our brand. Additionally, the actions of content partners may affect our brand if users do not have a positive experience using third-party applications or websites integrated with Twitter or that make use of Twitter content. Our brand may also be negatively affected by the actions of users that are hostile or inappropriate to other people, by users impersonating other people, by users identified as spam, by use of our products or services to disseminate information that may be viewed as misleading (or intended to manipulate the opinions of our users), by users introducing excessive amounts of spam on our platform or by third parties obtaining control over users' accounts. For example, in the past, attackers obtained the credentials to Twitter accounts through a "phishing" attack. Maintaining and enhancing our brand may require us to make substantial investments and these investments may not achieve the desired goals. If we fail to successfully promote and maintain our brand or if we incur excessive expenses in this effort, our business and operating results could be adversely affected.

Negative publicity could adversely affect our business and operating results.

We receive a high degree of media coverage around the world. Negative publicity about our company, including about our product quality and reliability, changes to our products and services, privacy and security practices, litigation, regulatory activity, the actions of our users (including the dissemination of information that may be viewed as misleading or as intended to manipulate the opinions of our users) or user experience with our products and services, even if inaccurate, could adversely affect our reputation and the confidence in and the use of our products and services. Such negative publicity could also have an adverse effect on the size, engagement and loyalty of our user base and result in decreased revenue, which could adversely affect our business and operating results.

Action by governments to restrict access to our products and services or censor Twitter content could harm our business and operating results.

Governments have sought, and may in the future seek, to censor content available through our products and services, restrict access to our products and services from their country entirely or impose other restrictions that may affect the accessibility of our products and services for an extended period of time or indefinitely. For example, domestic Internet service providers in China have blocked access to Twitter, and other countries, including Iran, Libya, Pakistan, Turkey and Syria, have intermittently restricted access to Twitter, and we believe that access to Twitter has been blocked in these countries primarily for political reasons. In addition, governments in these or other countries may seek to restrict access to our products and services based on our decisions around user content, providing user information in response to governmental requests, or other matters. In the event that access to our products and services is restricted, in whole or in part, in one or more countries or our competitors are able to successfully penetrate geographic markets that we cannot access, our ability to retain or increase our user base and user engagement may be adversely affected, and our operating results may be harmed.

Our future performance depends in part on support from our content partners and data partners.

We believe user engagement with our products and services depends in part on the availability of applications and content generated by our content or platform partners. For instance, in April 2016, we partnered with the National

Football League to deliver a free live digital video stream of NFL Thursday Night Football games on Twitter. If our content or platform partners focus their efforts on other platforms, the availability and quality of applications and content for our products and services may suffer. There is no assurance that our content or platform partners will continue to develop and maintain applications and content for our products and services. If our content or platform partners cease to develop and maintain applications and content for our products and services, user engagement may decline. In addition, we generate revenue from licensing our historical and real-time data to third parties. If any of these relationships are terminated or not renewed on economic and other terms that are acceptable to us, or if we are unable to enter into similar relationships in the future, our operating results could be adversely affected.

Our international operations are subject to increased challenges and risks.

We have offices around the world and our products and services are available in multiple languages. However, our ability to manage our business and conduct our operations internationally requires considerable management attention and resources and is subject to the particular challenges of supporting a rapidly growing business in an environment of multiple languages, cultures, customs, legal and regulatory systems, alternative dispute systems and commercial markets. Our international operations have required and will continue to require us to invest significant funds and other resources. Operating internationally subjects us to new risks and may increase risks that we currently face, including risks associated with:

- recruiting and retaining talented and capable employees in foreign countries and maintaining our company culture across all of our offices;
- providing our products and services and operating across a significant distance, in different languages and among different cultures, including the potential need to modify our products, services, content and features to ensure that they are culturally relevant in different countries;
- increased competition from largely regional websites, mobile applications and services that provide real-time communications and have strong positions in particular countries, which have expanded and may continue to expand their geographic footprint;
- differing and potentially lower levels of user growth, user engagement and ad engagement in new and emerging geographies;
- different levels of advertiser demand;
- greater difficulty in monetizing our products and services;
- compliance with applicable foreign laws and regulations, including laws and regulations with respect to privacy, data security, consumer protection, spam and content, and the risk of penalties to our users and individual members of management if our practices are deemed to be out of compliance;
- longer payment cycles in some countries;
- credit risk and higher levels of payment fraud;
- operating in jurisdictions that do not protect intellectual property rights to the same extent as the United States;
- compliance with anti-bribery laws including, without limitation, compliance with the Foreign Corrupt Practices Act and the U.K. Bribery Act, including by our business partners;
- currency exchange rate fluctuations;
- foreign exchange controls that might require significant lead time in setting up operations in certain geographic territories and might prevent us from repatriating cash earned outside the United States;
- political and economic instability in some countries;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the United States or the foreign jurisdictions in which we operate; and
- higher costs of doing business internationally, including increased accounting, travel, infrastructure and legal compliance costs.

If we are unable to manage the complexity of our global operations successfully, our business, financial condition and operating results could be adversely affected.

Our products and services may contain undetected software errors, which could harm our business and operating results.

Our products and services incorporate complex software and we encourage employees to quickly develop and help us launch new and innovative features. Our software, including any open source software that is incorporated into our code, has contained, and may now or in the future contain, errors, bugs or vulnerabilities. For example, in February 2016, we discovered, and corrected, a bug that affected our password recovery systems for about 24 hours. Although this issue did not expose passwords or information that could be used directly to access an account, it had the potential to expose the email address and phone number associated with a small number of accounts (less than 10,000 active accounts). Some errors in our software code may only be discovered after the product or service has been released. Errors, vulnerabilities, or other design defects within the software on which we rely may result in a negative experience for users and advertisers who use our products, delay product introductions or enhancements, result in targeting, measurement, or billing errors, compromise our ability to protect the data of our users and/or our intellectual property or lead to reductions in our ability to provide some or all of our services. For example, in December 2016, we discovered and corrected a technical error in our Android application that resulted in incorrect reporting of certain video advertisement metrics for approximately one month. Any errors, bugs or vulnerabilities discovered in our code after release could result in damage to our reputation, loss of users, loss of content or platform partners, loss of advertisers or advertising revenue or liability for damages or other relief sought in lawsuits, regulatory inquiries or other proceedings, any of which could adversely affect our business and operating results.

Our business is subject to complex and evolving U.S. and foreign laws and regulations. These laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations or declines in user growth, user engagement or ad engagement, or otherwise harm our business.

We are subject to a variety of laws and regulations in the United States and abroad that involve matters central to our business, including privacy, rights of publicity, data protection, content regulation, intellectual property, competition, protection of minors, consumer protection, credit card processing and taxation. Many of these laws and regulations are still evolving and being tested in courts. As a result, it is possible that these laws and regulations may be interpreted and applied in a manner that is inconsistent from country to country and inconsistent with our current policies and practices and in ways that could harm our business, particularly in the new and rapidly evolving industry in which we operate. Additionally, the introduction of new products or services may subject us to additional laws and regulations.

From time to time, governments, regulators and others have expressed concerns about whether our products, services or practices compromise the privacy of users and others. While we strive to comply with applicable data protection laws and regulations, as well as our own posted privacy policies and other obligations we may have with respect to privacy and data protection, the failure or perceived failure to so comply may result, and in some cases has resulted, in inquiries and other proceedings or actions against us by governments, regulators or others. Moreover, foreign data protection, privacy, consumer protection, content regulation and other laws and regulations are often more restrictive than those in the United States. In particular, the European Union and its member states traditionally have taken broader views as to types of data that are subject to privacy and data protection, and have imposed greater legal obligations on companies in this regard. A number of proposals are pending before federal, state and foreign legislative and regulatory bodies that could significantly affect our business. For example, in April 2016, European legislative bodies adopted the General Data Protection Regulation to replace European Union and national data protection legislation effective May 2018, which includes more stringent operational requirements for entities processing personal information and significant penalties for non-compliance, including fines of up to €20 million or 4% of total worldwide revenue. Additionally, we rely on a variety of legal bases to transfer certain personal information outside of the European Economic Area, including the EU-US Privacy Shield Framework, or Privacy Shield, and EU Standard Contractual Clauses, or SCCs. Both the Privacy Shield and SCCs are subject of legal

challenges in European courts, and the absence of successor legal bases for continued data transfer could require us to create duplicative, and potentially expensive, information technology infrastructure and business operations in Europe or limit our ability to collect and use personal information collected in Europe. Any of these changes to EU data protection law could disrupt our business.

Further, following a referendum in June 2016 in which voters in the United Kingdom approved an exit from the EU, it is expected that the United Kingdom government will initiate a process to leave the EU (often referred to as “Brexit”). Brexit has created uncertainty with regard to the regulation of data protection in the United Kingdom. In particular, it is unclear whether the United Kingdom will enact data protection laws or regulations designed to be consistent with the pending EU General Data Protection Regulation and how data transfers to and from the United Kingdom will be regulated.

Similarly, there have been a number of recent legislative proposals in the United States, at both the federal and state level, that would impose new obligations in areas such as privacy and liability for copyright infringement by third parties. The U.S. government, including the FTC and the Department of Commerce, has announced that it is reviewing the need for greater regulation for the collection of information concerning user behavior on the Internet, including regulation aimed at restricting certain online tracking and targeted advertising practices. Additionally, recent amendments to U.S. patent laws may affect the ability of companies, including us, to protect their innovations and defend against claims of patent infringement.

Additionally, we have built and made available certain commerce solutions that connect customers and retail partners and we have relationships with third parties that perform a variety of functions such as credit card processing, tokenization, vaulting, currency conversion, fraud prevention and data security audits. The laws and regulations related to e-commerce and payments are complex, subject to change, and vary across different jurisdictions in the United States and globally. As a result, we may be required to spend significant time, effort and expense to comply with applicable laws and regulations. Any failure or claim of our failure to comply, or any failure or claim of failure by the above-mentioned third parties to comply, could increase our costs or could result in liabilities. Additionally, because Twitter accepts payment via credit cards and is certified as a PCI Level 1 service provider, we are subject to payment card association operating rules and certification requirements, including the Payment Card Industry Data Security Standard.

We currently allow use of our platform without the collection of extensive personal information, such as age. We may experience additional pressure to expand our collection of personal information in order to comply with new and additional regulatory demands or we may independently decide to do so. If we obtain such additional personal information, we may be subject to additional regulation.

Regulatory investigations and settlements could cause us to incur additional expenses or change our business practices in a manner materially adverse to our business.

We have been subject to regulatory investigations in the past, and expect to continue to be subject to regulatory scrutiny as our business grows and awareness of our brand increases. In March 2011, to resolve an investigation into various incidents, we entered into a settlement agreement with the FTC that, among other things, required us to establish an information security program designed to protect non-public consumer information and also requires that we obtain biennial independent security assessments. The obligations under the settlement agreement remain in effect until the later of March 2, 2031, or the date 20 years after the date, if any, on which the U.S. government or the FTC files a complaint in federal court alleging any violation of the order. We expect to continue to be the subject of regulatory inquiries, investigations and audits in the future by the FTC and other regulators around the world.

It is possible that a regulatory inquiry, investigation or audit might result in changes to our policies or practices, and may cause us to incur substantial costs or could result in reputational harm, prevent us from offering certain products, services, features or functionalities, cause us to incur substantial costs or require us to change our business practices in a manner materially adverse to our business. Violation of existing or future regulatory orders, settlements or consent decrees could subject us to substantial monetary fines and other penalties that could negatively affect our financial condition and operating results.

If our security measures are breached, or if our products and services are subject to attacks that degrade or deny the ability of users to access our products and services, our products and services may be perceived as not being secure, users and advertisers may curtail or stop using our products and services and our business and operating results could be harmed.

Our products and services involve the storage and transmission of users' and advertisers' information, and security breaches expose us to a risk of loss of this information, litigation and potential liability. We also work with third-party vendors to process credit card payments by our customers and are subject to payment card association operating rules. We and our third-party service providers experience cyber-attacks of varying degrees on a regular basis. For example, in October 2016, we experienced a service outage as a result of several distributed denial of service attacks on our domain name service provider, Dyn. Third parties may also gain access to Twitter user names and passwords without attacking Twitter directly by combining credential information from other recent breaches, using malware on victim machines that are stealing passwords for all sites, or a combination of both. In addition, some of our developers or other partners, such as third party applications to which our users have given permission to Tweet on their behalf, may receive or store information provided by us or by our users through mobile or web applications integrated with us. If these third parties or developers fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or our users' data may be improperly accessed, used, or disclosed.

As a result, unauthorized parties have obtained, and may in the future obtain, access to our data or our users' or advertisers' data. For example, we have previously disclosed that sophisticated unknown third parties had attacked our systems and may have had access to limited information for small subset of our users. Any systems failure or actual or perceived compromise of our security that results in the unauthorized access to or release of our users' or advertisers' data, such as credit card data, could significantly limit the adoption of our products and services, as well as harm our reputation and brand and, therefore, our business.

Our security measures may also be breached due to employee error, malfeasance or otherwise. Additionally, outside parties may attempt to fraudulently induce employees, users or advertisers to disclose sensitive information in order to gain access to our data or our users' or advertisers' data or accounts, or may otherwise obtain access to such data or accounts. Since our users and advertisers may use their Twitter accounts to establish and maintain online identities, unauthorized communications from Twitter accounts that have been compromised may damage their reputations and brands as well as ours. Because the techniques used to obtain unauthorized access, disable or degrade service or sabotage systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures could be harmed, our users and advertisers may be harmed, lose trust and confidence in us, decrease the use of our products and services or stop using our products and services in their entirety. We may also incur significant legal and financial exposure, including legal claims, higher transaction fees and regulatory fines and penalties. Any of these actions could have a material and adverse effect on our business, reputation and operating results.

We may face lawsuits or incur liability as a result of content published or made available through our products and services.

We have faced and will continue to face claims relating to content that is published or made available through our products and services or third party products or services. In particular, the nature of our business exposes us to claims related to defamation, intellectual property rights, rights of publicity and privacy, illegal content, misinformation, content regulation and personal injury torts. The laws relating to the liability of providers of online products or services for activities of their users remains somewhat unsettled, both within the United States and internationally. This risk may be enhanced in certain jurisdictions outside the United States where we may be less protected under local laws than we are in the United States. In addition, the public nature of communications on our network exposes

us to risks arising from the creation of impersonation accounts intended to be attributed to our users or advertisers. We could incur significant costs investigating and defending these claims. If we incur material costs or liability as a result of these occurrences, our business, financial condition and operating results could be adversely affected.

Our intellectual property rights are valuable, and any inability to protect them could reduce the value of our products, services and brand.

Our trade secrets, trademarks, copyrights, patents and other intellectual property rights are important assets. We rely on, and expect to continue to rely on, a combination of confidentiality and license agreements with our employees, consultants and third parties with whom we have relationships, as well as trademark, trade dress, domain name, copyright, trade secret and patent laws, to protect our brand and other intellectual property rights. However, various events outside of our control pose a threat to our intellectual property rights, as well as to our products, services and technologies. For example, we may fail to obtain effective intellectual property protection, or effective intellectual property protection may not be available in every country in which our products and services are available. Also, the efforts we have taken to protect our intellectual property rights may not be sufficient or effective, and any of our intellectual property rights may be challenged, which could result in them being narrowed in scope or declared invalid or unenforceable. There can be no assurance our intellectual property rights will be sufficient to protect against others offering products or services that are substantially similar to ours and compete with our business.

We rely on non-patented proprietary information and technology, such as trade secrets, confidential information, know-how and technical information. While in certain cases we have agreements in place with employees and third parties that place restrictions on the use and disclosure of this intellectual property, these agreements may be breached, or this intellectual property may otherwise be disclosed or become known to our competitors, which could cause us to lose any competitive advantage resulting from this intellectual property.

We are pursuing registration of trademarks and domain names in the United States and in certain jurisdictions outside of the United States. Effective protection of trademarks and domain names is expensive and difficult to maintain, both in terms of application and registration costs as well as the costs of defending and enforcing those rights. We may be required to protect our rights in an increasing number of countries, a process that is expensive and may not be successful or which we may not pursue in every country in which our products and services are distributed or made available.

We are party to numerous agreements that grant licenses to third parties to use our intellectual property, including our trademarks. For example, many third parties distribute their content through Twitter, or embed Twitter content in their applications or on their websites, and make use of our trademarks in connection with their services. If the licensees of our trademarks are not using our trademarks properly, it may limit our ability to protect our trademarks and could ultimately result in our trademarks being declared invalid or unenforceable. We have a policy designed to assist third parties in the proper use of our brand, trademarks and other assets, and we have an internal team dedicated to enforcing our policy and protecting our brand. Our brand protection team routinely receives and reviews reports of improper and unauthorized use of the Twitter brand, trademarks or assets and issues takedown notices or initiates discussions with the third parties to correct the issues. However, there can be no assurance that we will be able to protect against the unauthorized use of our brand, trademarks or other assets. If we fail to maintain and enforce our trademark rights, the value of our brand could be diminished. There is also a risk that one or more of our trademarks could become generic, which could result in them being declared invalid or unenforceable. For example, there is a risk that the word “Tweet” could become so commonly used that it becomes synonymous with any short comment posted publicly on the Internet, and if this happens, we could lose protection of this trademark.

We also seek to obtain patent protection for some of our technology and as of December 31, 2016, we had 1,023 issued U.S. patents. We may be unable to obtain patent protection for our technologies, and our existing patents, and any patents that may be issued in the future, may not provide us with competitive advantages or distinguish our products and services from those of our competitors. In addition, any patents may be contested, circumvented, or found unenforceable or invalid, and we may not be able to prevent third parties from infringing or otherwise violating them. Effective protection of patent rights is expensive and difficult to maintain, both in terms of application and

maintenance costs, as well as the costs of defending and enforcing those rights.

Our Innovator's Patent Agreement, or IPA, also limits our ability to prevent infringement of our patents. In May 2013, we implemented the IPA, which we enter into with our employees and consultants, including our founders. The IPA, which applies to our current and future patents, allows us to assert our patents defensively. The IPA also allows us to assert our patents offensively with the permission of the inventors of the applicable patent. Under the IPA, an assertion of claims is considered for a defensive purpose if the claims are asserted: (i) against an entity that has filed, maintained, threatened or voluntarily participated in a patent infringement lawsuit against us or any of our users, affiliates, customers, suppliers or distributors; (ii) against an entity that has used its patents offensively against any other party in the past ten years, so long as the entity has not instituted the patent infringement lawsuit defensively in response to a patent litigation threat against the entity; or (iii) otherwise to deter a patent litigation threat against us or our users, affiliates, customers, suppliers or distributors. In addition, the IPA provides that the above limitations apply to any future owner or exclusive licensee of any of our patents, which could limit our ability to sell or license our patents to third parties. While we may be able to claim protection of our intellectual property under other rights, such as trade secrets or contractual obligations with our employees not to disclose or use confidential information, we may be unable to assert our patent rights against third parties that we believe are infringing our patents, even if such third parties are developing products and services that compete with our products and services. For example, in the event that an inventor of one of our patents leaves us for another company and uses our patented technology to compete with us, we would not be able to assert that patent against such other company unless the assertion of the patent right is for a defensive purpose. In such event, we may be limited in our ability to assert a patent right against another company, and instead would need to rely on trade secret protection or the contractual obligation of the inventor to us not to disclose or use our confidential information. In addition, the terms of the IPA could affect our ability to monetize our intellectual property portfolio.

Significant impairments of our intellectual property rights, and limitations on our ability to assert our intellectual property rights against others, could harm our business and our ability to compete.

Also, obtaining, maintaining and enforcing our intellectual property rights is costly and time consuming. Any increase in the unauthorized use of our intellectual property could make it more expensive to do business and harm our operating results.

We are currently, and expect to be in the future, party to intellectual property rights claims that are expensive and time consuming to defend, and, if resolved adversely, could have a significant impact on our business, financial condition or operating results.

Companies in the internet, technology and media industries are subject to litigation based on allegations of infringement, misappropriation or other violations of intellectual property or other rights. Many companies in these industries, including many of our competitors, have substantially larger patent and intellectual property portfolios than we do, which could make us a target for litigation as we may not be able to assert counterclaims against parties that sue us for patent, or other intellectual property infringement. In addition, various "non-practicing entities" that own patents and other intellectual property rights often attempt to assert claims in order to extract value from technology companies. From time to time we receive claims from third parties which allege that we have infringed upon their intellectual property rights. Further, from time to time we may introduce new products, product features and services, including in areas where we currently do not have an offering, which could increase our exposure to patent and other intellectual property claims from competitors and non-practicing entities. In addition, although our standard terms and conditions for our Promoted Products and public APIs do not provide advertisers and platform partners with indemnification for intellectual property claims against them, some of our agreements with advertisers, content

partners, platform partners and data partners require us to indemnify them for certain intellectual property claims against them, which could require us to incur considerable costs in defending such claims, and may require us to pay significant damages in the event of an adverse ruling. Such advertisers, content partners, platform partners and data partners may also discontinue use of our products, services and technologies as a result of injunctions or otherwise, which could result in loss of revenue and adversely impact our business.

We presently are involved in a number of intellectual property lawsuits, and as we face increasing competition and gain an increasingly high profile and develop new products, we expect the number of patent and other intellectual property claims against us to grow. There may be intellectual property or other rights held by others, including issued or pending patents, that cover significant aspects of our products and services, and we cannot be sure that we are not infringing or violating, and have not infringed or violated, any third-party intellectual property rights or that we will not be held to have done so or be accused of doing so in the future. Any claim or litigation alleging that we have infringed or otherwise violated intellectual property or other rights of third parties, with or without merit, and whether or not settled out of court or determined in our favor, could be time-consuming and costly to address and resolve, and could divert the time and attention of our management and technical personnel. Some of our competitors have substantially greater resources than we do and are able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. The outcome of any litigation is inherently uncertain, and there can be no assurances that favorable final outcomes will be obtained in all cases. In addition, plaintiffs may seek, and we may become subject to, preliminary or provisional rulings in the course of any such litigation, including potential preliminary injunctions requiring us to cease some or all of our operations. We may decide to settle such lawsuits and disputes on terms that are unfavorable to us. Similarly, if any litigation to which we are a party is resolved adversely, we may be subject to an unfavorable judgment that may not be reversed upon appeal. The terms of such a settlement or judgment may require us to cease some or all of our operations or pay substantial amounts to the other party. In addition, we may have to seek a license to continue practices found to be in violation of a third-party's rights. If we are required, or choose to enter into royalty or licensing arrangements, such arrangements may not be available on reasonable terms, or at all, and may significantly increase our operating costs and expenses. As a result, we may also be required to develop or procure alternative non-infringing technology, which could require significant effort and expense or discontinue use of the technology. An unfavorable resolution of the disputes and litigation referred to above could adversely affect our business, financial condition and operating results.

Many of our products and services contain open source software, and we license some of our software through open source projects, which may pose particular risks to our proprietary software, products, and services in a manner that could have a negative effect on our business.

We use open source software in our products and services and will use open source software in the future. In addition, we regularly contribute software source code to open source projects under open source licenses or release internal software projects under open source licenses, and anticipate doing so in the future. The terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that open source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide or distribute our products or services. Additionally, we may from time to time face claims from third parties claiming ownership of, or demanding release of, the open source software or derivative works that we developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation and could require us to make our software source code freely available, purchase a costly license or cease offering the implicated products or services unless and until we can re-engineer them to avoid infringement. This re-engineering process could require significant additional research and development resources, and we may not be able to complete it successfully. In addition to risks related to license requirements, use of certain open source software may pose greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of software. Any of these risks could be difficult to eliminate or manage, and, if not addressed, could have a negative effect on our business, financial condition and operating results.

We may require additional capital to support our operations or the growth of our business, and we cannot be certain that this capital will be available on reasonable terms when required, or at all.

From time to time, we may need additional financing to operate or grow our business. Our ability to obtain additional financing, if and when required, will depend on investor and lender demand, our operating performance, the condition of the capital markets and other factors, and we cannot assure you that additional financing will be available to us on favorable terms when required, or at all. If we raise additional funds through the issuance of equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to the rights of our common stock, and our existing stockholders may experience dilution. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support the operation or growth of our business could be significantly impaired and our operating results may be harmed.

We rely on assumptions and estimates to calculate certain of our key metrics, and real or perceived inaccuracies in such metrics may harm our reputation and negatively affect our business.

The number of our active users is calculated using internal company data that has not been independently verified. While these numbers are based on what we believe to be reasonable calculations for the applicable period of measurement, there are inherent challenges in measuring usage and user engagement across our large user base around the world. For example, there are a number of false or spam accounts in existence on our platform. We estimate that false or spam accounts represent less than 5% of our MAUs as of December 31, 2016. However, this estimate is based on an internal review of a sample of accounts and we apply significant judgment in making this determination. As such, our estimation of false or spam accounts may not accurately represent the actual number of such accounts, and the actual number of false or spam accounts could be higher than we have currently estimated. We are continually seeking to improve our ability to estimate the total number of spam accounts and eliminate them from the calculation of our active users, but we otherwise treat multiple accounts held by a single person or organization as multiple users for purposes of calculating our active users because we permit people and organizations to have more than one account. Additionally, some accounts used by organizations are used by many people within the organization. As such, the calculations of our active users may not accurately reflect the actual number of people or organizations using our platform.

Our metrics are also affected by mobile applications that automatically contact our servers for regular updates with no discernable user-initiated action involved, and this activity can cause our system to count the user associated with such a device as an active user on the day such contact occurs. The calculations of MAUs and DAUs presented in this Annual Report on Form 10-K may be affected by this activity. The impact of this automatic activity on our metrics varies by geography because mobile application usage varies in different regions of the world. In addition, our data regarding user geographic location is based on the IP address or phone number associated with the account when a user initially registered the account on Twitter. That IP address or phone number may not always accurately reflect a user's actual location at the time of such user's engagement on our platform.

We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy. We present and discuss our total audience based on both internal metrics and data from Google Analytics, which measures unique visitors to our properties. Our measures of user growth and user engagement may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology. If advertisers, content or platform partners or investors do not perceive our user metrics to be accurate representations of our user base or user engagement, or if we discover material inaccuracies in our user metrics, our reputation may be harmed and content partners, advertisers and platform partners may be less willing to allocate their budgets or resources to our products and services, which could negatively affect our business and operating results. Further, as our business develops, we may revise or cease reporting metrics if we determine that such metrics are no longer accurate or appropriate measures of our performance. For example, we stopped disclosing timeline views as we no longer believed that metric was helpful in measuring engagement on our platform. If investors, analysts or customers do not believe our reported measures of user engagement are sufficient or accurately reflect our business, we may receive negative publicity and our operating results may be harmed.

Spam could diminish the user experience on our platform, which could damage our reputation and deter our current and potential users from using our products and services.

"Spam" on Twitter refers to a range of abusive activities that are prohibited by our terms of service and is generally defined as unsolicited, repeated actions that negatively impact other users with the general goal of drawing user attention to a given account, site, product or idea. This includes posting large numbers of unsolicited mentions of a user, duplicate Tweets, misleading links (e.g., to malware or "click-jacking" pages) or other false or misleading content, and aggressively following and un-following accounts, adding users to lists, sending invitations, Retweeting and

liking Tweets to inappropriately attract attention. Our terms of service also prohibit the creation of serial or bulk accounts, both manually or using automation, for disruptive or abusive purposes, such as to tweet spam or to artificially inflate the popularity of users seeking to promote themselves on Twitter. Although we continue to invest resources to reduce spam on Twitter, we expect spammers will continue to seek ways to act inappropriately on our platform. In addition, we expect that increases in the number of users on our platform will result in increased efforts by spammers to misuse our platform. We continuously combat spam, including by suspending or terminating accounts we believe to be spammers and launching algorithmic changes focused on curbing abusive activities. Our actions to combat spam require the diversion of significant time and focus of our engineering team from improving our products and services. If spam increases on Twitter, this could hurt our reputation for delivering relevant content or reduce user growth and user engagement and result in continuing operational cost to us.

We rely in part on application marketplaces and Internet search engines to drive traffic to our products and services, and if we fail to appear high up in the search results or rankings, traffic to our platform could decline and our business and operating results could be adversely affected.

We rely on application marketplaces, such as Apple's App Store and Google's Play, to drive downloads of our mobile applications. In the future, Apple, Google or other operators of application marketplaces may make changes to their marketplaces which make access to our products and services more difficult or limit our use of data to provide targeted advertising. We also depend in part on Internet search engines, such as Google, Apple Spotlight, Bing and Yahoo, to drive traffic to our website. For example, when a user types an inquiry into a search engine, we rely on a high organic search result ranking of our webpages in these search results to refer the user to our website. However, our ability to maintain high organic search result rankings is not within our control. Our competitors' search engine optimization, or SEO, efforts may result in their websites receiving a higher search result page ranking than ours, or Internet search engines could revise their methodologies in a way that would adversely affect our search result rankings. If Internet search engines modify their search algorithms in ways that are detrimental to us, or if our competitors' SEO efforts are more successful than ours, the growth in our user base could slow. Our website has experienced fluctuations in search result rankings in the past, and we anticipate similar fluctuations in the future. Any reduction in the number of users directed to our mobile applications or website through application marketplaces and search engines could harm our business and operating results.

More people are using devices other than personal computers to access the Internet and new platforms to produce and consume content, and we need to continue to promote the adoption of our mobile applications, and our business and operating results may be harmed if we are unable to do so.

The number of people who access the Internet through devices other than personal computers, including mobile phones, tablets, video game consoles and television set-top devices, has increased dramatically in the past few years. In the three months ended December 31, 2016, 89% of our advertising revenue was generated from mobile devices. Since we generate a majority of our advertising revenue through users on mobile devices, we must continue to drive adoption of our mobile applications. However, in emerging markets like India and Pakistan, a significant portion of users use feature phones and communicate via SMS messaging, both of which have limited functionality and neither of which may be able to take full advantage of our products and services offered on smartphone or our website or desktop applications. In addition, mobile users frequently change or upgrade their mobile devices. Our business and operating results may be harmed if our users do not install our mobile application when they change or upgrade their mobile device. Although we generate the majority of our advertising revenue from ad engagements on mobile devices, certain of our products and services, including Promoted Trends and Promoted Accounts, receive less prominence on our mobile applications than they do on our desktop applications. This has in the past reduced, and may in the future continue to reduce, the amount of revenue we are able to generate from these products and services as users increasingly access our products and services through mobile and alternative devices. In addition, as new devices and platforms are continually being released, users may consume content in a manner that is more difficult to monetize. If we are unable to develop products and services that are compatible with new devices and platforms, or if we are unable to drive continued adoption of our mobile applications, our business and operating results may be harmed.

Acquisitions, divestitures and investments could disrupt our business and harm our financial condition and operating results.

Our success will depend, in part, on our ability to expand our products, product features and services, and grow our business in response to changing technologies, user and advertiser demands, and competitive pressures. In some circumstances, we may determine to do so through the acquisition of complementary businesses and technologies

rather than through internal development, including, for example, our acquisitions of Periscope, a live-streaming video mobile application, MoPub, a mobile-focused advertising exchange; and TellApart, Inc., a marketing technology company providing retailers and e-commerce advertisers with unique retargeting capabilities. The identification of suitable acquisition candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete identified acquisitions. The risks we face in connection with acquisitions include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;
- retention of key employees from the acquired company;
- cultural challenges associated with integrating employees from the acquired company into our organization;

- integration of the acquired company's accounting, management information, human resources and other administrative systems and processes;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked effective controls, procedures and policies;
- liability for activities of the acquired company before the acquisition, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities and other known and unknown liabilities;
- unanticipated write-offs or charges; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, users, former stockholders or other third parties.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of these acquisitions or investments, cause us to incur unanticipated liabilities, and harm our business generally. Future acquisitions could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expenses, incremental operating expenses or the impairment of goodwill, any of which could harm our financial condition or operating results.

In certain cases, we have also divested or stopped investing in certain products. In these cases, we have needed to and may, in the future, need to restructure operations, terminate employees and/or incur other expenses. We may not realize the expected benefits and cost savings of these actions and our results may be harmed.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, and the listing standards of the New York Stock Exchange. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight.

Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could cause us to be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments. Any such failures could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the New York Stock Exchange.

If currency exchange rates fluctuate substantially in the future, our operating results, which are reported in U.S. dollars, could be adversely affected.

Our international operations expose us to the effects of fluctuations in currency exchange rates. We incur expenses for employee compensation and other operating expenses at our international locations in the local currency, and accept payment from advertisers or data partners in currencies other than the U.S. dollar. Since we conduct business in currencies other than U.S. dollars but report our operating results in U.S. dollars, we face exposure to fluctuations in currency exchange rates. While we enter into foreign currency forward contracts with financial institutions to reduce the risk that our earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the functional currency of a subsidiary, exchange rate fluctuations

between the U.S. dollar and other currencies could have a material impact on our operating results.

Servicing our convertible senior notes may require a significant amount of cash, and we may not have sufficient cash flow or the ability to raise the funds necessary to satisfy our obligations under such notes, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of such notes.

In 2014, we issued $935.0 million principal amount of 0.25% convertible senior notes due 2019, or the 2019 Notes, and $954.0 million principal amount of 1.00% convertible senior notes due 2021, or the 2021 Notes and together with the 2019 Notes, the Notes, in private placements to qualified institutional buyers. As of December 31, 2016, we had a total par value of $1.89 billion of outstanding Notes.

Holders of the Notes will have the right under the indenture for the Notes to require us to repurchase all or a portion of their notes upon the occurrence of a fundamental change before the relevant maturity date, in each case at a repurchase price equal to 100% of the principal amount of the Notes, plus accrued and unpaid interest, if any, to the fundamental change repurchase date. In addition, upon conversion of the Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional shares), we will be required to make cash payments in respect of the Notes being converted. Moreover, we will be required to repay the notes in cash at their maturity, unless earlier converted or repurchased.

Our ability to refinance the Notes, make cash payments in connection with conversions of the Notes or repurchase the Notes in the event of a fundamental change will depend on market conditions and our future performance, which is subject to economic, financial, competitive and other factors beyond our control. We also may not use the cash we have raised through the issuance of the Notes in an optimally productive and profitable manner. However, since inception we have incurred significant operating losses and we historically had not been cash flow positive and may not be in the future. As a result, we may not have enough available cash or be able to obtain financing on commercially reasonable terms or at all, at the time we are required to make repurchases of notes surrendered therefor or pay cash with respect to notes being converted or at their maturity and our level of indebtedness could adversely affect our future operations by increasing our vulnerability to adverse changes in general economic and industry conditions and by limiting or prohibiting our ability to obtain additional financing for future capital expenditures, acquisitions and general corporate and other purposes. In addition, if we are unable to make cash payments upon conversion of the Notes we would be required to issue significant amounts of our common stock, which would be dilutive to existing stockholders. If we do not have sufficient cash to repurchase the Notes following a fundamental change, we would be in default under the terms of the Notes, which could seriously harm our business. In addition, the terms of the Notes do not limit the amount of future indebtedness we may incur. If we incur significantly more debt, this could intensify the risks described above.

Our business is subject to the risks of earthquakes, fire, power outages, floods and other catastrophic events, and to interruption by man-made problems such as terrorism.

A significant natural disaster, such as an earthquake, fire, flood or significant power outage could have a material adverse impact on our business, operating results, and financial condition. Our headquarters and certain of our co-located data center facilities are located in the San Francisco Bay Area, a region known for seismic activity. Despite any precautions we may take, the occurrence of a natural disaster or other unanticipated problems at our data centers could result in lengthy interruptions in our services. In addition, acts of terrorism and other geo-political unrest could cause disruptions in our business. All of the aforementioned risks may be further increased if our disaster recovery plans prove to be inadequate. We have implemented a disaster recovery program, which allows us to move production to a back-up data center in the event of a catastrophe. Although this program is functional, we do not currently serve network traffic equally from each data center, so if our primary data center shuts down, there will be a period of time that our products or services, or certain of our products or services, will remain inaccessible to our users or our users may experience severe issues accessing our products and services.

We do not carry business interruption insurance sufficient to compensate us for the potentially significant losses, including the potential harm to our business that may result from interruptions in our ability to provide our products and services.

We may have exposure to greater than anticipated tax liabilities, which could adversely impact our operating results.

Our income tax obligations are based in part on our corporate operating structure, including the manner in which we develop, value and use our intellectual property and the scope of our international operations. The tax laws applicable to our international business activities, including the laws of the United States and other jurisdictions, are subject to interpretation. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology (or other intangible assets) or intercompany arrangements, which could increase our worldwide effective tax rate and harm our financial condition and operating results. On October 5, 2015, the Organization for Economic Cooperation and Development (OECD), an international association of thirty four countries, including the U.S. and UK, released the final reports from its Base Erosion and Profit Shifting (BEPS) Action Plans. The BEPS recommendations covered a number of issues, including country-by-country reporting, permanent establishment rules, transfer pricing rules and tax treaties. Future tax reform resulting from this development may result in changes to long-standing tax principles, which could adversely affect our effective tax rate or result in higher cash tax liabilities. We are subject to review and audit by U.S. federal and state and foreign tax authorities. Tax authorities may disagree with certain positions we have taken and any adverse outcome of such a review or audit could have a negative effect on our financial position and operating results. In addition, our future income taxes could be adversely affected by earnings being lower than anticipated in jurisdictions that have lower statutory tax rates and higher than anticipated in jurisdictions that have higher statutory tax rates, by changes in the valuation of our deferred tax assets and liabilities, or by changes in tax laws, regulations or accounting principles, as well as certain discrete items. Greater than anticipated tax expenses, or disputes with tax authorities, could adversely impact our operating results.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under generally accepted accounting principles in the United States, or GAAP, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. As of December 31, 2016, we had recorded a total of $1.28 billion of goodwill and intangible assets. An adverse change in market conditions or financial results, particularly if such change has the effect of changing one of our critical assumptions or estimates, could result in a change to the estimation of fair value that could result in an impairment charge to our goodwill or intangible assets. Any such material charges may have a material negative impact on our operating results.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2016, we had U.S. federal net operating loss carryforwards of approximately $3.47 billion and state net operating loss carryforwards of approximately $1.41 billion. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an “ownership change,” the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited. In general, an “ownership change” occurs if there is a cumulative change in our ownership by “5% shareholders” that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. In the event that it is determined that we have in the past experienced an ownership change, or if we experience one or more ownership changes as a result of future transactions in our stock, then we may be limited in our ability to use our net operating loss carryforwards and other tax assets to reduce taxes owed on the net taxable income that we earn. Any such limitations on the ability to use our net operating loss carryforwards and other tax assets could adversely impact our business, financial condition and operating results.

Risks Related to Ownership of Our Common Stock

Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions which could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws include provisions:

- creating a classified board of directors whose members serve staggered three-year terms;
- authorizing "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors; and
- controlling the procedures for the conduct and scheduling of board of directors and stockholder meetings.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents certain stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of at least two-thirds of our outstanding common stock not held by such 15% or greater stockholder.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws or Delaware law that has the effect of delaying, preventing or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

The market price of our common stock has been and will likely continue to be volatile, and you could lose all or part of your investment.

The market price of our common stock has been and may continue to be highly volatile in response to various factors, some of which are beyond our control. Since shares of our common stock were sold in our initial public offering in November 2013 at a price of $26.00 per share, the reported high and low sales prices of our common stock has ranged from $74.73 to $13.72, through December 31, 2016. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this Annual Report on Form 10-K, factors that could cause fluctuations in the market price of our common stock include the following:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the market prices and trading volumes of technology stocks;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- sales of shares of our common stock by us or our stockholders;
- rumors and market speculation involving us or other companies in our industry;

- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial or non-financial metric projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new products or services;

- the public's reaction to our press releases, other public announcements and filings with the SEC;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- our issuance of shares of our common stock, whether in connection with an acquisition or upon conversion of some or all of our outstanding Notes;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. Any securities litigation can result in substantial costs and a diversion of our management's attention and resources. We are currently subject to securities litigation and may experience more such litigation following any future periods of volatility.

The note hedge and warrant transactions may affect the value of our common stock.

Concurrently with the issuance of the Notes, we entered into note hedge transactions with certain financial institutions, which we refer to as the option counterparties. The note hedge transactions are generally expected to reduce the potential dilution upon any conversion of the Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be. We also entered into warrant transactions with the option counterparties. However, the warrant transactions could separately have a dilutive effect to the extent that the market price per share of our common stock exceeds the applicable strike price of the warrants.

The option counterparties or their respective affiliates may modify their initial hedge positions by entering into or unwinding various derivatives contracts with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes (and are likely to do so during any observation period related to a conversion of Notes or following any repurchase of Notes by us on any fundamental change repurchase date or otherwise). This activity could cause or avoid an increase or a decrease in the market price of our common stock.

In addition, if any such convertible note hedge and warrant transactions fail to become effective, the option counterparties or their respective affiliates may unwind their hedge positions with respect to our common stock, which could adversely affect the value of our common stock.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the price of our common stock and trading volume could decline.

The trading market for our common stock is influenced, to some extent, by the research and reports that securities or industry analysts publish about us, our business, our industry, our market or our competitors. If any of the analysts who cover us change their recommendation regarding our common stock adversely, or provide more favorable relative recommendations about our competitors, the price of our common stock would likely decline. If any analysts who cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the price of our common stock or trading volume to decline.

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We do not expect to declare any dividends in the foreseeable future.

We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. In addition, our credit facility contains restrictions on payments including payments of cash dividends. Consequently, investors may need to rely on sales of our common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Facilities

As of December 31, 2016, we leased office facilities around the world totaling approximately 1,599,000 square feet, including approximately 760,000 square feet for our corporate headquarters in San Francisco, California. We also lease data center facilities in the United States pursuant to various lease agreements and co-location arrangements with data center operators. We believe our facilities are sufficient for our current needs.

Item 3. LEGAL PROCEEDINGS

Legal Proceedings

We are currently involved in, and may in the future be involved in, legal proceedings, claims, investigations, and government inquiries arising in the ordinary course of business. These proceedings, in the form of both individual and class action litigation, have included, but are not limited to matters involving intellectual property, defamation, privacy, securities, employment and contractual rights. Legal risk is enhanced in certain jurisdictions outside the United States where our protection from liability for content published on our platform by third parties may be unclear and where we may be less protected under local laws than we are in the United States. Future litigation may be necessary, among other things, to defend ourselves, and our users, by determining the scope, enforceability, and validity of third-party rights or to establish our rights.

Although the results of the legal proceedings, claims, investigations, and government inquiries in which we are involved cannot be predicted with certainty, we do not believe that there is a reasonable possibility that the final outcome of these matters will have a material adverse effect on our business, financial condition, operating results, or prospects. However, the final results of any current or future proceeding cannot be predicted with certainty, and until there is final resolution on any such matter that we may be required to accrue for, we may be exposed to loss in excess of the amount accrued. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Item 4. MINE SAFETY DISCLOSURE

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 has been listed on the New York Stock Exchange under the symbol "TWTR" since November 7, 2013. Prior to that date, there was no public trading market for our common stock. The following table sets forth the high and low sales price per share of our common stock as reported on the New York Stock Exchange for the periods indicated:

	2016		2015	
	High	Low	High	Low
First Quarter	$23.00	$13.91	$51.87	$35.54
Second Quarter	17.98	13.72	53.49	33.51
Third Quarter	23.98	15.69	38.82	21.01
Fourth Quarter	25.25	16.16	31.87	21.99

Holders of Record

As of February 17, 2017, there were 925 holders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors may deem relevant. In addition, the credit facility contains restrictions on payments including cash payments of dividends.

Unregistered Sales of Equity Securities

From January 1, 2016 through December 31, 2016, we issued an aggregate of 3,676,026 shares of our common stock to a strategic partner and in connection with our acquisitions of certain companies or their assets.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. We believe the offers, sales and issuances of the above securities were exempt from registration under the Securities Act by virtue of Section 4(2) of the Securities Act because the issuance of securities to the recipients did not involve a public offering. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution

thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

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 (Exchange Act), or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Twitter, Inc. under the Securities Act of 1933, as amended, or the Exchange Act.

The following graph compares the cumulative total return to stockholders on our common stock relative to the cumulative total returns of the Standard & Poor's 500 Index, or S&P 500, and the Dow Jones Internet Composite Index, or DJ Internet Composite. An investment of $100 (with reinvestment of all dividends) is assumed to have been made in our common stock and in each index on November 7, 2013, the date our common stock began trading on the NYSE, and its relative performance is tracked through December 31, 2016. The returns shown are based on historical results and are not intended to suggest future performance.

Item 6. SELECTED FINANCIAL DATA

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

The consolidated statements of operations data for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 are derived from our audited consolidated financial statements included in Part II, Item 8, “Financial Statements and Supplementary Data” in this Annual Report on Form 10 K. The consolidated statements of operations data for the year 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 consolidated financial statements not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected in the future.

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(In thousands, except per share data)				
Consolidated Statement of Operations Data:					
Revenue	$2,529,619	$2,218,032	$1,403,002	$664,890	$316,933
Costs and expenses[1]					
Cost of revenue	932,240	729,256	446,309	266,718	128,768
Research and development	713,482	806,648	691,543	593,992	119,004
Sales and marketing	957,829	871,491	614,110	316,216	86,551
General and administrative	293,276	260,673	189,906	123,795	59,693
Total costs and expenses	2,896,827	2,668,068	1,941,868	1,300,721	394,016
Loss from operations	(367,208)	(450,036)	(538,866)	(635,831)	(77,083)
Interest expense	(99,968)	(98,178)	(35,918)	(7,576)	(3,255)
Other income (expense), net	26,342	14,909	(3,567)	(3,739)	1,168
Loss before income taxes	(440,834)	(533,305)	(578,351)	(647,146)	(79,170)
Provision (benefit) for income taxes	16,039	(12,274)	(531)	(1,823)	229
Net loss	$(456,873)	$(521,031)	$(577,820)	$(645,323)	$(79,399)
Net loss per share attributable to common stockholders:					
Basic and diluted	$(0.65)	$(0.79)	$(0.96)	$(3.41)	$(0.68)
Weighted-average shares used to compute net loss per share attributable to common stockholders:					
Basic and diluted	702,135	662,424	604,990	189,510	117,401
Other Financial Information:[2]					
Adjusted EBITDA	$751,493	$557,807	$300,896	$75,430	$21,164
Non-GAAP net income (loss)	$405,996	$276,629	$101,071	$(34,330)	$(35,191)

[1] Costs and expenses include stock-based compensation expense as follows:

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Cost of revenue	$29,502	$40,705	$50,536	$50,942	$800
Research and development	335,498	401,537	360,726	379,913	12,622
Sales and marketing	160,935	156,904	157,263	114,440	1,346
General and administrative	89,298	82,972	63,072	55,072	10,973
Total stock-based compensation	$615,233	$682,118	$631,597	$600,367	$25,741

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(2) See the section titled “Non-GAAP Financial Measures” below for additional information and a reconciliation of net loss to Adjusted EBITDA and net loss to non-GAAP net income (loss).

	As of December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$988,598	$911,471	$1,510,724	$841,010	$203,328
Short-term investments	2,785,981	2,583,877	2,111,154	1,393,044	221,528
Working capital	4,068,175	3,875,753	3,862,059	2,349,249	444,587
Property and equipment, net	783,901	735,299	557,019	332,662	185,574
Total assets	6,870,365	6,442,439	5,583,082	3,366,240	831,568
Convertible notes	1,538,967	1,455,095	1,376,020	—	—
Total liabilities	2,265,430	2,074,392	1,956,679	416,234	207,204
Redeemable convertible preferred stock	—	—	—	—	37,106
Convertible preferred stock	—	—	—	—	835,430
Total stockholders' equity (deficit)	4,604,935	4,368,047	3,626,403	2,950,006	(248,172)

Non-GAAP Financial Measures

To supplement our consolidated financial statements presented in accordance with generally accepted accounting principles in the United States, or GAAP, we consider certain financial measures that are not prepared in accordance with GAAP, including Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP net income (loss), revenue on a constant currency basis and advertising revenue on a constant currency basis. These non-GAAP financial measures are not based on any standardized methodology prescribed by GAAP and are not necessarily comparable to similarly-titled measures presented by other companies.

Adjusted EBITDA

We define Adjusted EBITDA as net loss adjusted to exclude stock-based compensation expense, depreciation and amortization expense, interest and other expenses, provision (benefit) for income taxes and restructuring charges, if any. Adjusted EBITDA margin is calculated by dividing Adjusted EBITDA by revenue.

The following table presents a reconciliation of net loss to Adjusted EBITDA for each of the periods indicated:

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Reconciliation of Net Loss to Adjusted EBITDA					
Net loss	$(456,873)	$(521,031)	$(577,820)	$(645,323)	$(79,399)
Stock-based compensation expense	615,233	682,118	631,597	600,367	25,741
Depreciation and amortization expense	402,172	312,823	208,165	110,894	72,506
Interest and other expense, net	73,626	83,269	39,485	11,315	2,087

Provision (benefit) for income taxes	16,039	(12,274)	(531)	(1,823)	229
Restructuring charges	101,296	12,902	—	—	—
Adjusted EBITDA	$751,493	$557,807	$300,896	$75,430	$21,164

Non-GAAP Net Income (Loss)

We define non-GAAP net income (loss) as net loss adjusted to exclude stock-based compensation expense, amortization of acquired intangible assets, non-cash interest expense related to our convertible notes, non-cash expense related to acquisitions, income tax effects related to acquisitions, and restructuring charges.

The following table presents a reconciliation of net loss to non-GAAP net income (loss) for each of the periods indicated:

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Reconciliation of Net Loss to Non-GAAP Net Income (Loss)					
Net loss	$(456,873)	$(521,031)	$(577,820)	$(645,323)	$(79,399)
Stock-based compensation expense	615,233	682,118	631,597	600,367	25,741
Amortization of acquired intangible assets	69,338	54,659	36,563	16,530	18,687
Non-cash interest expense related to convertible notes	74,660	69,185	18,823	—	—
Non-cash expense related to acquisition	—	926	—	—	—
Income tax effects related to acquisitions	2,342	(22,130)	(8,092)	(5,904)	(220)
Restructuring charges	101,296	12,902	—	—	—
Non-GAAP net income (loss)	$405,996	$276,629	$101,071	$(34,330)	$(35,191)

We use the non-GAAP financial measures of Adjusted EBITDA, Adjusted EBITDA margin and non-GAAP net income (loss) in evaluating our operating results and for financial and operational decision-making purposes. We believe that Adjusted EBITDA, Adjusted EBITDA margin and non-GAAP net income (loss) help identify underlying trends in our business that could otherwise be masked by the effect of the expenses that we exclude in Adjusted EBITDA and non-GAAP net income (loss). We believe that Adjusted EBITDA, Adjusted EBITDA margin and non-GAAP net income (loss) provide useful information about our operating results, enhance the overall understanding of our past performance and future prospects and allow for greater transparency with respect to key metrics used by our management in its financial and operational decision-making. We also use these measures to establish budgets and operational goals for managing our business and evaluating our performance.

These non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with GAAP. There are a number of limitations related to the use of these non-GAAP financial measures rather than net loss, which is the nearest GAAP equivalent of these financial measures. Some of these limitations are:

- These non-GAAP financial measures exclude restructuring charges and certain recurring, non-cash charges such as stock-based compensation expense, amortization of acquired intangible assets and non-cash interest expense related to convertible notes;
- Stock-based compensation expense has been, and will continue to be for the foreseeable future, a significant recurring expense in our business and an important part of our compensation strategy;
- Adjusted EBITDA does not reflect tax payments that reduce cash available to us;
- Adjusted EBITDA excludes depreciation and amortization expense and, although these are non-cash charges, the property and equipment being depreciated and amortized may have to be replaced in the future; and
- The expenses that we exclude in our calculation of these non-GAAP financial measures may differ from the expenses, if any, that our peer companies may exclude from similarly-titled non-GAAP measures when they report their results of operations.

We have attempted to compensate for these limitations by providing the nearest GAAP equivalents of these non-GAAP financial measures and describing these GAAP equivalents under the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations.”

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Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes thereto included in Item 8 "Financial Statements and Supplemental Data" in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section titled "Risk Factors" included elsewhere in this Annual Report on Form 10-K.

Certain revenue information in the section entitled "—Revenue" is presented on a constant currency basis. This information is a non-GAAP financial measure. To calculate revenue on a constant currency basis, we translated revenue for the full year 2016 using 2015 monthly exchange rates for our settlement currencies other than the U.S. dollar. This non-GAAP financial measure is not intended to be considered in isolation or as a substitute for, or superior to, financial information prepared and presented in accordance with GAAP. This measure may be different from non-GAAP financial measures used by other companies, limiting its usefulness for comparison purposes. Moreover, presentation of revenue on a constant currency basis is provided for year-over-year comparison purposes, and investors should be cautioned that the effect of changing foreign currency exchange rates has an actual effect on our operating results. We believe this non-GAAP financial measure provides investors with useful supplemental information about the financial performance of our business, enable comparison of financial results between periods where certain items may vary independent of business performance, and allows for greater transparency with respect to key metrics used by management in operating our business.

FY 2016 Overview and Highlights

Total revenue was $2.53 billion, an increase of 14% compared to 2015.

- Advertising revenue totaled $2.25 billion, an increase of 13% compared to 2015.
- Mobile advertising revenue was 89% of total advertising revenue
- Data licensing and other revenue totaled $281.6 million, an increase of 26% compared to 2015.
- U.S. revenue totaled $1.56 billion, an increase of 8% compared to 2015.
- International revenue totaled $964.8 million, an increase of 25% compared to 2015.
- Total ad engagements were up 152% year-over-year.
- Cost per engagement was down 55% year-over-year.

Net loss was $456.9 million and adjusted EBITDA was $751.5 million, resulting in an adjusted EBITDA margin of 30%, an increase of 5% compared to 2015.

Cash, cash equivalents and short-term investments in marketable securities totaled $3.77 billion as of December 31, 2016.

Average monthly active users (MAUs) were 319 million for the three months ended December 31, 2016, up 4% compared to the three months ended December 31, 2015 (SMS Fast Followers have been excluded from total reported MAUs for the three months ended December 31, 2015 to enable a direct period-to-period comparison). In the three months ended December 31, 2016, approximately 80% of our average MAUs accessed Twitter from a mobile device, roughly stable from the three months ended December 31, 2015.

Average daily active usage (DAU) for the three months ended December 31, 2016 grew 11% year-over-year.

Key Metrics

We review a number of metrics, including the following key metrics, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions.

Monthly Active Users (MAUs). We define MAUs as Twitter users who logged in or were otherwise authenticated and accessed Twitter through our website, mobile website, desktop or mobile applications, SMS or registered third-party applications or websites in the 30-day period ending on the date of measurement. Average MAUs for a period represent the average of the MAUs at the end of each month during the period. MAUs are a measure of the size of our logged in or otherwise authenticated active user base. In the three months ended December 31, 2016, we had 319 million average MAUs, which represents an increase of 4% from the three months ended December 31, 2015. The growth in average MAUs was driven primarily by product improvements and organic growth, as well as marketing initiatives. In the three months ended December 31, 2016, we had 67 million average MAUs in the United States and 252 million average MAUs in the rest of the world, which represent increases of 3% and 5%, respectively, from the three months ended December 31, 2015. For additional information on how we calculate MAUs and factors that can affect this metric, see the section titled “Note Regarding Key Metrics.”

Changes in Daily Active Users/Daily Active Usage (DAU). We define daily active users or daily active usage as Twitter users who logged in or were otherwise authenticated and accessed Twitter through our website, mobile website or mobile applications on any given day. Average DAU for a period represent the average of the DAU at the end of such period. Changes in DAU are a measure of changes in the size of our daily logged in or otherwise authenticated active user base. Prior to reporting results for the third quarter of 2016, we had discussed DAUs and the ratio of monthly active users (MAUs) to DAUs. In those instances, for comparability and consistency with MAUs, DAUs also included users who accessed Twitter through our desktop applications and third-party properties. For additional information on how we calculate changes in DAUs and factors that can affect this metric, see the section titled “Note Regarding Key Metrics.”

Changes in Ad Engagements and Cost Per Ad Engagement. We define an ad engagement as a user interaction with one of our pay-for-performance advertising products. Ad engagements with our advertising products are based on a user completing an objective set out by an advertiser such as expanding, Retweeting, liking or replying to a Promoted Tweet, viewing an embedded video, downloading or engaging with a promoted mobile application, clicking on a website link, signing up for marketing emails from advertisers, following the account that tweets a Promoted Tweet, or completing a transaction on an external website. We believe changes in ad engagements is one way to measure user engagement with our advertising products. We believe changes in cost per ad engagement is one way to measure demand.

In the three months ended December 31, 2016, ad engagements increased 151% from the three months ended December 31, 2015. The increase was primarily driven by growth in video ad engagements and ad engagements on third-party publishers’ websites, applications and other offerings, and stronger advertiser demand for our advertising products in the fourth quarter of 2016 compared to the fourth quarter of 2015. In the three months ended December 31, 2016, average cost per ad engagement decreased 60% from the three months ended December 31, 2015. The decrease in cost per ad engagement was primarily driven by a mix shift to auto-play video and decreases in same-format prices for most of our advertising products.

Factors Affecting Our Future Performance

User Growth and Monetization. User growth trends reflected in the number of MAUs, changes in DAUs and monetization trends reflected in advertising engagements are key factors that affect our revenue. As our user base and the level of engagement of our users grow, we believe the potential to increase our revenue grows, although we expect revenue growth to continue to significantly lag audience growth in, and possibly beyond, 2017 due to lead time for sales cycles, continued increased competition and the impact from revenue products that we have or may decide to de-emphasize as we did with our TellApart offering (as described in more detail below). Based on the competitive factors and marketplace challenges in our ability to attract demand from advertisers, which has intensified in the first quarter of 2017, we expect a downturn in our revenue on a year-over-year basis.

User Growth. We have generally experienced growth in our number of users over the last several years. In general, a higher proportion of Internet users in the United States use Twitter than Internet users in other countries. Accordingly, in the future we expect our user growth rate in certain international markets, such as Canada, France, Germany, India, Japan, Mexico, the Philippines, Saudi Arabia, and South Korea, to continue to be higher than our user growth rate in the United States. However, we expect to face challenges in entering some markets, such as China, where access to Twitter is blocked, as well as certain other countries that have intermittently restricted access to Twitter. Restrictions or limitations on access to Twitter may adversely impact our ability to increase the size of our user base and generate additional revenue in certain markets.

We do not separately track whether an MAU has only used Twitter on a desktop or on a mobile device. However, in the three months ended December 31, 2016, approximately 80% of our average MAUs accessed Twitter from a mobile device, roughly stable from the three months ended December 31, 2015.

We may face challenges in increasing the size of our user base, including, among others, competition from alternative products and services, a decline in the number of influential users on Twitter or a perceived decline in the quality of content or user experience available on Twitter. We intend to drive growth in our user base by building and shipping product changes more rapidly to make Twitter safer and investing in our core use case and in new product areas — such as live streaming video, among others — that further strengthen our unique position as the best and fastest place to see and talk about what's happening in the world. Our user growth rate has slowed over time, and it may continue to slow or decline. To the extent our logged-in user growth or user growth rate continues to slow or the absolute number of logged in users declines, our revenue growth will become increasingly dependent on our ability to increase levels of user engagement on Twitter and monetizing our total audience on logged-out usage and syndicated properties as well as increasing revenue growth from third party publishers' websites, applications and other offerings.

Monetization. There are many variables that impact the monetization of our platform, such as the number of MAUs, our users' level of engagement with our platform, ad load (which is a function of the amount of advertising we choose to display), our users' engagement with our Promoted Products, advertiser demand and cost per ad engagement. Generally, we design our algorithms for our pay-for-performance Promoted Products on Twitter to optimize the overall user experience and the value we deliver to advertisers. We expect advertising revenue growth to continue to significantly lag audience growth in, and possibly beyond, 2017. Advertising revenue growth may be further impacted by escalating competition for digital ad spending and the reevaluation of our revenue product feature portfolio, which could result in the de-emphasis of certain product features. Furthermore, we may see a continuing decline in the number of advertisers on a year-over-year basis, which may also impact overall demand for our ads products. We have, and may in the future, increase ad load to the extent that we are able to continue to reach the right balance of advertiser value and the overall user experience. In order to improve monetization, we plan to increase the value of our advertising services by continuing to increase the size and engagement of our user base as well as improve our ability to target advertising to our users' interests and the ability of our advertisers to optimize their campaigns and measure the results of their campaigns.

Although the majority of the Promoted Products we sell to our advertisers are placed on Twitter, we have augmented our advertising revenue by selling to advertisers our advertising products that we place on third-party publishers' websites, applications or other offerings. For the latter category of advertising placements, we incur additional costs, particularly traffic acquisition costs, to fulfill our services to advertisers. This mix shift of additional advertising revenue being generated from such third-party placements may continue in the future. As we have chosen to decrease our investment in the product, we have seen a declining trend in revenue from our TellApart offering and expect contributions from our advertising products that we place on third-party publishers' websites and applications to face significant headwinds in 2017 from factors impacting our TellApart offering. In 2017, we expect an even steeper decline in contribution to revenue directly from our TellApart offering.

We intend to continue to increase the monetization of our platform by improving the targeting capabilities of our advertising services to enhance the value of our Promoted Products for advertisers, delivering differentiated products to advertisers, and developing new ad formats for advertisers.

Effectiveness of Our Advertising Services. Advertisers can use Twitter to communicate directly with their followers for free, but many choose to purchase our advertising services to reach a broader audience and further promote their brands, products and services. We believe that increasing the effectiveness of our Promoted Products for advertisers, as well as providing better measurement tools and improving creative capabilities, will increase the amount that advertisers spend with us. We aim to increase the value of our Promoted Products by increasing the size and engagement of our user base, improving our ability to target advertising to our users' interests and improving the ability of our advertisers to optimize their campaigns and measure the results of their campaigns. We may also develop new advertising products and services.

Investment in International Operations. We intend to strategically invest in our international operations in order to expand our user base and advertiser base and increase user engagement and monetization internationally. In the three months ended December 31, 2016, we had 252 million average MAUs internationally compared to 67 million average MAUs in the United States. In addition, our number of users is growing at a faster rate in many international markets, such as Canada, France, Germany India, Japan, Mexico, the Philippines, Saudi Arabia, and South Korea. However, we derive the majority of our advertising revenue from advertisers in the United States.

We face challenges in increasing our advertising revenue internationally, including local competition, differences in advertiser demand, differences in the digital advertising market and conventions, and differences in the manner in which Twitter is accessed and used internationally. We face competition from well-established competitors in certain international markets. In addition, certain international markets are not as familiar with digital advertising in general, or with new forms of digital advertising, such as our Promoted Products. In these jurisdictions we are investing to educate advertisers about the benefits of our advertising services. However, we expect that it may require a significant investment of time and resources to educate advertisers in many international markets. We also face challenges in providing certain advertising products, features or analytics in certain international markets, such as the European Union, due to government regulation. In addition, in certain emerging markets, a significant portion of users still access Twitter through feature phones with limited functionality, rather than through smartphones, our website or desktop applications. This limits our ability to deliver certain features to these users and may limit the ability of advertisers to deliver compelling ads to users in these markets.

Competition. We face increasing competition for users and advertisers. We compete against many companies to attract and engage users and for advertiser spend, including companies with greater financial resources and substantially larger user bases which offer a variety of Internet and mobile device-based products, services and content. In recent years there has been a significant number of acquisitions and consolidation activity by and among our actual and potential competitors. We must compete effectively for users and advertisers in order to grow our business and increase our revenue. We believe that our ability to compete effectively for users depends upon a number of factors, including the quality of our products and services and the actual or perceived return our advertisers receive on their investment in our products and services. Our ability to compete effectively for advertisers also depends upon a number of factors, including our ability to offer attractive advertising products with unique targeting capabilities and the size of our active user base. We have seen escalating competition for digital ad spending and expect this trend to continue. In addition, many advertisers, particularly branded advertisers use marketing mix analyses to determine how to allocate their advertising budgets on an annual or bi-annual basis. As a result, we need to demonstrate to those advertisers during the appropriate time period that we provide a better return on investment than our competitors do in order to secure, increase or sustain our share of the advertising budget allocated for a significant portion of the year until the next budget cycle. We intend to continue to invest in research and development to improve our products and services for users and advertisers and to grow our active user base in order to address the competitive challenges in

our industry. As part of our strategy to improve our products and services, we may acquire other companies to add engineering talent or complementary products and technologies.

Investment in Infrastructure. We strive to optimize the capacity and enhance the capability and reliability of our infrastructure. Our infrastructure is critical to providing users, platform partners, advertisers and data partners access to our platform, particularly during major planned and unplanned events, such as elections, sporting events or natural disasters, when activity on our platform increases dramatically. As our user base and the activity on our platform grow, we expect that investments and expenses associated with our infrastructure will continue to grow. These investments and expenses include the expansion of our data center operations and related operating costs, additional servers and networking equipment to increase the capacity of our infrastructure and increased bandwidth costs.

Products and Services Innovation. Our ability to increase the size and engagement of our user base, attract advertisers and increase our revenue will depend, in part, on our ability to improve existing products and services and to successfully develop or acquire new products and services. We plan to continue to make significant investments in research and development and, from time to time, we may acquire companies to enhance our products, services and technical capabilities.

Investment in Talent. We intend to invest in hiring key roles and retaining talented employees to grow our business. In October 2016, we implemented a reduction in force and have also seen high levels of attrition, and as a result, need to focus on hiring and employee retention to be successful. We have also made, and intend to continue to make, acquisitions that add engineers, designers, product managers and other personnel with specific technology expertise. In addition, we must retain our high-performing personnel in order to continue to develop, sell and market our products and services and manage our business.

Seasonality. Advertising spending is traditionally strongest in the fourth quarter of each year. Historically, this seasonality in advertising spending has affected our quarterly results, with higher sequential advertising revenue growth from the third quarter to the fourth quarter compared to sequential advertising revenue growth from the fourth quarter to the subsequent first quarter. For example, our advertising revenue increased 35%, 25% and 17% between the third and fourth quarters of 2014, 2015 and 2016, respectively, while advertising revenue for the first quarter of 2015 and 2016 decreased 10% and 17% compared to the fourth quarter of 2014 and 2015, respectively. The growth in our business may have partially masked seasonality to date and the seasonal impacts may be more pronounced in the future.

Stock-Based Compensation Expense. We have historically utilized, and intend to continue to utilize, various forms of stock-based awards in order to hire and retain talented employees. During the twelve months ended December 31, 2016 and 2015, we recognized $615.2 million and $682.1 million of expense related to stock-based compensation, respectively. As of December 31, 2016, we had unrecognized stock-based compensation expense of approximately $844.0 million related to outstanding equity awards, after giving effect to estimated forfeitures, which we expect to recognize over a weighted-average period of approximately two years. The stock-based compensation expenses related to our outstanding equity awards have a significant impact on our ability to generate net income on a GAAP basis in future periods. We continued to make progress in reducing our annual stock-based compensation expense on both an absolute basis and as a percentage of revenue. We remain committed to reducing stock-based compensation to high single digits as a percentage of revenue over time, bringing us more in line with our peers.

Results of Operations

The following tables set forth our consolidated statement of operations data for each of the periods presented:

	Year Ended December 31,		
	2016	2015	2014
	(in thousands)		
Revenue			
Advertising services	$2,248,052	$1,994,036	$1,255,688
Data licensing and other	281,567	223,996	147,314
Total Revenue	2,529,619	2,218,032	1,403,002
Costs and expenses [1]			
Cost of revenue	932,240	729,256	446,309
Research and development	713,482	806,648	691,543

Sales and marketing	957,829	871,491	614,110
General and administrative	293,276	260,673	189,906
Total costs and expenses	2,896,827	2,668,068	1,941,868
Loss from operations	(367,208)	(450,036)	(538,866)
Interest expense	(99,968)	(98,178)	(35,918)
Other income (expense), net	26,342	14,909	(3,567)
Loss before income taxes	(440,834)	(533,305)	(578,351)
Provision (benefit) for income taxes	16,039	(12,274)	(531)
Net loss	$(456,873)	$(521,031)	$(577,820)

(1) Costs and expenses include stock-based compensation expense as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Cost of revenue	$29,502	$40,705	$50,536
Research and development	335,498	401,537	360,726
Sales and marketing	160,935	156,904	157,263
General and administrative	89,298	82,972	63,072
Total stock-based compensation expense	$615,233	$682,118	$631,597

The following table sets forth our consolidated statement of operations data for each of the periods presented as a percentage of revenue:

	Year Ended December 31,		
	2016	2015	2014
Revenue			
Advertising services	89 %	90 %	90 %
Data licensing and other	11	10	10
Total Revenue	100	100	100
Costs and expenses			
Cost of revenue	37	33	32
Research and development	28	36	49
Sales and marketing	38	39	44
General and administrative	12	12	14
Total costs and expenses	115	120	138
Loss from operations	(15)	(20)	(38)
Interest expense	(4)	(4)	(3)
Other income (expense), net	1	1	(0)
Loss before income taxes	(17)	(24)	(41)
Provision (benefit) for income taxes	1	(1)	(0)
Net loss	(18)%	(23)%	(41)%

Years Ended December 31, 2016, 2015 and 2014

Revenue

We generate the substantial majority of our revenue from the sale of advertising services. We also generate revenue by licensing our data to third parties and providing mobile advertising exchange services.

Advertising Services

We generate most of our advertising revenue by selling our Promoted Products. Currently, our Promoted Products consist of the following:

- Promoted Tweets. Promoted Tweets, which are labeled as “promoted,” appear within a user’s timeline, search results or profile pages just like an ordinary Tweet regardless of device, whether it be desktop or mobile. Using our proprietary algorithms and understanding of the interests of each user, we can deliver Promoted Tweets that are intended to be relevant to a particular user. We enable our advertisers to target an audience based on our users’ Interest Graphs. Our Promoted Tweets are pay-for-performance advertising that is priced through an auction. Our Promoted Tweets include objective-based features that allow advertisers to pay only for the types of engagement selected by the advertisers, such as Tweet engagements (e.g., Retweets, replies and likes), website clicks or conversions, mobile application installs or engagements, obtaining new followers, or video views.

- Promoted Accounts. Promoted Accounts, which are labeled as "promoted," provide a way for our advertisers to grow a community of users who are interested in their business, products or services. Our Promoted Accounts are pay-for-performance advertising that is priced through an auction.
- Promoted Trends. Promoted Trends, which are labeled as "promoted," appear at the top of the list of trending topics for an entire day in a particular country or on a global basis. We sell our Promoted Trends on a fixed-fee-per-day basis.

While the majority of the Promoted Products we sell to our advertisers are placed on Twitter, we also generate advertising revenue by placing advertising products that we sell to advertisers on third-party publishers' websites, applications or other offerings.

Data Licensing and Other

We generate data licensing and other revenue by (i) offering data products and data licenses that allow our data partners to access, search and analyze historical and real-time data on our platform, which data consists of public Tweets and their content, and (ii) providing mobile advertising exchange services through our MoPub exchange. Our data partners generally purchase licenses to access all or a portion of our data for a fixed period. We recognize data licensing revenue as the licensed data is made available to our data partners. In addition, we operate a mobile ad exchange and receive service fees from transactions completed on the exchange. Our mobile ad exchange enables buyers and sellers to purchase and sell advertising inventory and matches buyers and sellers. We have determined we are not the principal in the purchase and sale of advertising inventory in transactions between third party buyers and sellers on the exchange. Therefore we report revenue related to our ad exchange services on a net basis.

	Year Ended December 31,			2015 to 2016 % Change	2014 to 2015 % Change
	2016	2015	2014		
	(in thousands)				
Advertising services	$2,248,052	$1,994,036	$1,255,688	13 %	59 %
Data licensing and other	281,567	223,996	147,314	26 %	52 %
Total Revenue	$2,529,619	$2,218,032	$1,403,002	14 %	58 %

2016 Compared to 2015. Revenue in 2016 increased by $311.6 million compared to 2015. On a constant currency basis, revenue in 2016, using the prior year's monthly exchange rates for our settlement currencies other than the U.S. dollar, would have increased by $318.6 million or 14% compared to 2015.

In 2016, advertising revenue increased by 13% compared to 2015. Foreign exchange effect did not have a material impact on advertising revenue in 2016. The substantial majority of our advertising revenue was generated from our owned and operated platform. Advertising revenue generated from the sale of our advertising products on our owned and operated platform in 2016 was $1.99 billion as compared to $1.80 billion in 2015. Advertising revenue generated from the sale of our advertising products placed on third party publishers' websites, applications and other offerings in 2016 was $260.2 million as compared to $194.2 million in 2015, which increase was driven, in part, by the acquisition of TellApart in May 2015 and from the growth of sales in our organically-built advertising network, Twitter Audience Platform. The overall increase in advertising revenue was primarily attributable to a 152% increase in the number of ad engagements offset by a 55% decrease in average cost per ad engagement in 2016 compared to 2015. The increase in ad engagements was driven by continued adoption of auto-play video and an increase in ad load. The decrease in average cost per ad engagement was due primarily to the shift to auto-play video, which delivers more engagement at a much lower average cost per engagement than click-to-play video ads and decreases in same-format prices for most

of our other advertising products. Advertising revenue continued to be driven by growth in demand for our advertising products, particularly video as well as growth in our advertising base. Strength from our video ad format, however, was offset by year-over-year declines in revenue generated from our traditional Promoted Tweet ad format. We expect contributions from our advertising products that we place on third-party publishers' websites and applications to face significant headwinds in 2017 from factors impacting our TellApart offering.

In 2016, data licensing and other revenue increased by 26% compared to 2015. The increase was primarily attributable to growth in mobile advertising exchange services and to a lesser extent an increase in data licensing fees from the offering of data products.

2015 Compared to 2014. Revenue in 2015 increased by $815.0 million compared to 2014. On a constant currency basis, revenue in 2015, using the prior year's monthly exchange rates for our settlement currencies other than the U.S. dollar, would have increased by $896.7 million or 64% compared to 2014.

In 2015, advertising revenue increased by 59% compared to 2014. On a constant currency basis, advertising revenue in 2015, using the prior year's monthly exchange rates for our settlement currencies other than the U.S. dollar, would have increased 65% compared to 2014. The substantial majority of our advertising revenue was generated from our owned and operated platform. Advertising revenue generated from the sale of our advertising products on our owned and operated platform in 2015 was $1.80 billion as compared to $1.24 billion in 2014. Advertising revenue generated from the sale of our advertising products placed on third party publishers' websites, applications and other offerings in 2015 was $194.2 million as compared to $11.4 million in 2014, which increase was driven, in part, by the acquisition of TellApart. The overall increase in advertising revenue was primarily attributable to a 107% increase in the number of ad engagements offset by a 23% decrease in average cost per ad engagement in 2015 compared to 2014. The increase in ad engagements was primarily the result of our move to auto-play video in late 2015, as well as growth in our advertising revenue generated from third party publishers' websites, applications and other offerings, and an increase in ad load. The decrease in average cost per ad engagement was due primarily to the shift to auto-play video, which delivers more engagement at a much lower average cost per engagement than click-to-play video ads. Advertising revenue continued to be driven by growth in demand for our advertising products, particularly video and website card formats as well as growth in our advertising base.

In 2015, data licensing and other revenue increased by 52% compared to 2014. The increase was primarily attributable to growth in mobile advertising exchange services as well as the increase in data licensing fees from the offering of data products for a full year in 2015 as compared to the partial year in 2014.

Cost of Revenue

Cost of revenue includes infrastructure costs, other direct costs including content costs, amortization of acquired intangible assets and capitalized labor costs, allocated facilities costs, as well as traffic acquisition costs, or TAC. Infrastructure costs consist primarily of data center costs related to our co-located facilities, which include lease and hosting costs, related support and maintenance costs and energy and bandwidth costs; as well as depreciation of our servers and networking equipment; and personnel-related costs, including salaries, benefits and stock-based compensation, for our operations teams. TAC consists of costs we incur with third parties in connection with the sale to advertisers of our advertising products that we place on third-party publishers' websites, applications or other offerings collectively resulting from acquisitions, and from our organically-built advertising network, Twitter Audience Platform. Many of the elements of our cost of revenue are fixed, and cannot be reduced in the near term to offset any decline in our revenue.

	Year Ended December 31,			2015 to 2016 % Change	2014 to 2015 % Change
	2016	2015	2014		
	(in thousands)				
Cost of revenue	$932,240	$729,256	$446,309	28 %	63 %
Cost of revenue as a percentage of revenue	37 %	33 %	32 %		

2016 Compared to 2015. In 2016, cost of revenue, which included TAC of $141.6 million, increased by $203.0 million compared to 2015. The increase was primarily attributable to a $63.4 million increase in networking, hosting and data center costs related to our co-located facilities, a $54.6 million increase in depreciation expense related to additional server and networking equipment and amortization of acquired intangible assets, a $47.9 million increase in restructuring expenses as a result of lease write-offs, a $40.0 million increase in other direct costs, and a $19.7 million increase in TAC. The increases were offset by a $22.6 million decrease in personnel-related costs, mainly driven by a decrease in average employee headcount and compensation expense.

2015 Compared to 2014. In 2015, cost of revenue, which included TAC of $121.8 million, increased by $282.9 million compared to 2014. The increase was primarily attributable to a $113.7 million increase in TAC, a $79.5 million increase in networking, hosting and data center costs related to our co-located facilities, a $76.3 million increase in depreciation expense related to additional server and networking equipment and amortization of acquired intangible assets, and a $24.1 million increase in other direct costs, offset by a $10.7 million decrease in personnel-related costs, mainly driven by a decrease in average employee headcount and stock-based compensation expense.

We plan to continue to scale the capacity and enhance the capability and reliability of our infrastructure to support user growth and increased activity on our platform. We expect that the amount of revenue generated from the sale of our advertising services on third party publishers' websites, applications and other offerings will vary, which will also result in variability in the amount of TAC that we incur. As a result, we expect that cost of revenue, in particular TAC, will vary in absolute dollar amounts for the foreseeable future and vary in the near term from period to period as a percentage of revenue.

Research and Development

Research and development expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our engineers and other employees engaged in the research and development of our products and services. In addition, research and development expenses include amortization of acquired intangible assets, allocated facilities and other supporting overhead costs.

	Year Ended December 31,			2015 to 2016 % Change	2014 to 2015 % Change
	2016	2015	2014		
	(in thousands)				
Research and development	$713,482	$806,648	$691,543	(12)%	17 %
Research and development as a percentage of revenue	28 %	36 %	49 %		

2016 Compared to 2015. In 2016, research and development expenses decreased by $93.2 million compared to 2015. The decrease was primarily attributable to a $69.1 million decrease in personnel-related costs, mainly driven by a decrease in compensation expense from a decrease in average employee headcount, a $42.7 million increase in the capitalization of costs associated with developing software for internal use due primarily to an increase in the number of projects as we refine our core services, and a $2.5 million decrease in other expenses. The decreases were offset by a $9.1 million increase in allocated facilities and other supporting overhead expenses, a $7.2 million increase in restructuring expenses and a $4.8 million increase in depreciation expense.

2015 Compared to 2014. In 2015, research and development expenses increased by $115.1 million compared to 2014. The increase was primarily attributable to an $87.0 million increase in personnel-related costs, mainly driven by an increase in compensation and recognition of stock-based compensation expense, and a $41.4 million increase in allocated facilities and other supporting overhead expenses due to the continued expansion of our real estate footprint and increase in support functions. These increases were partially offset by a $13.3 million increase in the capitalization of costs associated with developing software for internal use.

We plan to continue to invest in key areas of our business and ensure that we have the right level of engineering, product management and design teams to support our research and development efforts. We expect that research and development costs will vary in the near term from period to period as a percentage of revenue.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel-related costs, including salaries, commissions, benefits and stock-based compensation for our employees engaged in sales, sales support, business development and media, marketing, corporate communications and customer service functions. In addition, marketing and sales-related expenses also include advertising costs, market research, tradeshows, branding, marketing, public relations costs, amortization of acquired intangible assets, as well as allocated facilities and other supporting overhead costs.

	Year Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	% Change	% Change
	(in thousands)				
Sales and marketing	$957,829	$871,491	$614,110	10 %	42 %
Sales and marketing as a percentage of revenue	38 %	39 %	44 %		

2016 Compared to 2015. In 2016, sales and marketing expenses increased by $86.3 million compared to 2015. The increase was primarily attributable to a $31.9 million increase in allocated facilities and other supporting overhead expenses due to the increase in support functions, a $27.6 million increase in restructuring expenses mainly driven by a reduction in workforce at the end of 2016, a $21.8 million increase in personnel-related costs, mainly driven by an increase in compensation expense, and a $16.5 million increase in amortization of acquired intangible assets, offset by an $11.5 million decrease in marketing and sales-related expenses.

2015 Compared to 2014. In 2015, sales and marketing expenses increased by $257.4 million compared to 2014. The increase was primarily attributable to a $109.2 million increase in marketing and sales-related expenses, mainly driven by an increase in consumer marketing and market research, an $80.5 million increase in personnel-related costs, mainly driven by an increase in average employee headcount from expansion of sales, media, marketing and business development, a $61.0 million increase in allocated facilities and other supporting overhead expenses due to the continued expansion of our real estate footprint and increase in support functions, and a $6.7 million increase in amortization of acquired intangible assets.

We continue to evaluate key areas in our business to ensure we have the right level of sales and marketing to execute on our key priorities and objectives. We expect that sales and marketing expenses will vary in the near term from period to period as a percentage of revenue.

General and Administrative

General and administrative expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our executive, finance, legal, information technology, human resources and other administrative employees. In addition, general and administrative expenses include fees and costs for professional services, including consulting, third-party legal and accounting services and facilities and other supporting overhead costs that are not allocated to other departments.

	Year Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	% Change	% Change
	(in thousands)				
General and administrative	$293,276	$260,673	$189,906	13 %	37 %
General and administrative as a percentage of revenue	12 %	12 %	14 %		

2016 Compared to 2015. In 2016, general and administrative expense increased by $32.6 million compared to 2015. The increase was primarily attributable to a $17.1 million increase in personnel-related costs, driven by an increase in compensation expense from an increase in average employee headcount, a $6.8 million increase in facilities and supporting costs not allocated to other functions, a $6.5 million increase in fees and costs for professional services, and a $5.6 million increase in restructuring expenses. The increases were offset by a $3.4 million increase in the capitalization of costs associated with developing software for internal use.

2015 Compared to 2014. In 2015, general and administrative expense increased by $70.8 million compared to 2014. The increase was primarily attributable to a $63.7 million increase in personnel-related costs, mainly driven by an increase in average employee headcount, increase in compensation and recognition of stock-based compensation expense, an increase of $11.0 million in fees and costs for professional services, offset by a $3.9 million decrease in unallocated facilities and supporting costs.

We plan to continue to invest in key areas of our business and ensure that we have the right level of general and administrative support on our key priorities and objectives. We expect that general and administrative expenses will vary in the near term from period to period as a percentage of revenue.

Interest Expense

Interest expense consists primarily of interest expense incurred in connection with the $935.0 million principal amount of 0.25% convertible senior notes due 2019, or the 2019 Notes, and $954.0 million principal amount of 1.00% convertible senior notes due 2021, or the 2021 Notes and together with the 2019 Notes, the Notes, and interest expense related to capital leases and other financing facilities.

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Interest expense	$99,968	$98,178	$35,918

2016 Compared to 2015. In 2016, interest expense increased by $1.8 million compared to 2015. Interest expense in 2016 was comprised of $94.5 million of total interest expense related to the Notes as well as the credit facility and $5.5 million related to capital leases of equipment.

2015 Compared to 2014. In 2015, interest expense increased by $62.3 million compared to 2014. The increase was primarily attributable to a full year of interest expense related to the amortization of the debt discount and accrued coupon interest expense of the Notes as compared to a partial year of interest expense recorded in 2014, as the Notes were issued in the third quarter of 2014. Interest expense in 2015 was comprised of $89.4 million of total interest expense related to the Notes as well as the credit facility and $8.8 million related to capital leases of equipment.

Other Income (Expense), Net

Other income (expense), net, consists primarily of unrealized foreign exchange gains and losses due to re-measurement of monetary assets and liabilities denominated in non-functional currencies as well as realized foreign exchange gains and losses on foreign exchange transactions, and interest income resulting from our short term investments net of the related amortization of premium paid on such investments. We expect our foreign exchange gains and losses will vary depending upon movements in the underlying exchange rates.

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Other income (expense), net	$26,342	$14,909	$(3,567)

2016 Compared to 2015. In 2016, other income, net, increased by $11.4 million compared to 2015. The increase was attributable to an increase in interest income on our short term investments and favorable foreign currency exchange impacts from foreign currency-denominated assets and liabilities as well as derivative financial instruments, offset by an increase in other expenses. Other income, net in 2016 was comprised of $25.3 million of interest and other income

and $5.8 million of foreign currency exchange gain, offset by $4.8 million of other expenses.

2015 Compared to 2014. In 2015, other income, net, changed by $18.5 million compared to other expense, net of $3.6 million in 2014. The change was attributable to an increase in interest income on our short term investments and favorable foreign currency exchange impacts from foreign currency-denominated assets and liabilities as well as derivative financial instruments. Other income, net in 2015 was comprised of $13.1 million of interest and other income and $1.8 million of foreign currency exchange gain.

Provision (Benefit) for Income Taxes

Provision (benefit) for income taxes consists of federal and state income taxes in the United States and income taxes in certain foreign jurisdictions which are expected to fluctuate based on the pre-tax results within and outside of the United States and will also be impacted by our allocation of centrally incurred costs to foreign jurisdictions. Our future effective tax rate will also be affected by the changes in tax rates and tax regulations, the impact of tax examinations, the impact of business combinations, and changes in valuation allowance. In addition, the provision is impacted by deferred income taxes and changes in the related valuation allowance reflecting the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Provision (Benefit) for Income Taxes	$16,039	$(12,274)	$(531)

2016 Compared to 2015. Our provision for income taxes in 2016 changed by $28.3 million compared to a benefit of $12.3 million in 2015. The increase was primarily due to a decrease in the income tax benefit arising from acquisitions of $24.2 million, and by an increase in income tax expense in foreign jurisdictions of $4.1 million. The $24.2 million decrease in income tax benefit is related to the release of deferred tax valuation allowance resulting from acquisitions completed within the prior year. The deferred tax liabilities recorded in the prior year, as part of purchase accounting, provided an additional source of taxable income to support the realizability of pre-existing deferred tax assets. In the year ended December 31, 2016, the acquisitions we completed did not result in a release of deferred tax valuation allowance due to acquisitions either in a foreign jurisdiction with no valuation allowance or offsetting acquired deferred tax assets.

2015 Compared to 2014. Our benefit from income taxes in 2015 increased by $11.7 million compared to a benefit of $0.5 million in 2014. The increase was primarily due to the increased income tax benefit arising from acquisitions, partially offset by the increased income tax expense in foreign jurisdictions. The increase in income tax benefit is related to the release of the valuation allowance resulting from acquisitions completed in 2015. The deferred tax liabilities recorded in 2015, as part of purchase accounting, provided an additional source of taxable income to support the realizability of pre-existing deferred tax assets.

On July 27, 2015, the United States Tax Court issued an opinion (Altera Corp. et al. v. Commissioner), which invalidated the 2003 final Treasury rule that requires participants in qualified cost-sharing arrangements to share stock-based compensation costs. A final decision was entered by the U.S. Tax Court on December 28, 2015 and the Internal Revenue Service filed an appeal with the U.S. Court of Appeals for the Ninth Circuit on February 19, 2016. We filed our 2014 and 2015 federal tax return based upon the opinion rendered in this case, which we believe will more likely than not be sustained, and which resulted in additional 2014 and 2015 net operating loss in the U.S. federal jurisdiction with a commensurate decrease in the overall pre-tax loss in foreign jurisdictions. As we maintain a full valuation allowance on our U.S. deferred tax assets, no benefit was realized in the financial statements as a result of this filing position. On an ongoing basis, stock-based compensation will be excluded from intercompany charges.

As of December 31, 2016, we had $3.47 billion of federal and $1.41 billion of state net operating loss carryforwards available to reduce future taxable income. These net operating loss carryforwards will begin to expire for federal income tax purposes and state income tax purposes in 2027 and 2017, respectively. We also have research credit carryforwards of $222.8 million and $184.5 million for federal and state income tax purposes, respectively. The federal research credit carryforward will begin to expire in 2027. The state research credit carryforward has no expiration date. Additionally, we have California Enterprise Zone credit carryforwards of $18.9 million which will begin to expire in 2023. Utilization of the net operating loss carryforwards and research credit carryforwards may be subject to an annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. Any annual limitation may result in the expiration of net operating losses and research credits before utilization.

Quarterly Results of Operations

The following table sets forth our unaudited consolidated statement of operations data for each of the eight quarters in the period ended December 31, 2016. The unaudited quarterly statement of operations data set forth below have been prepared on a basis consistent with our audited annual consolidated financial statements in this Annual Report on Form 10-K and include, in our opinion, all normal recurring adjustments necessary for a fair statement of the financial information contained in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future. The following quarterly financial data should be read in conjunction with our audited consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K.

	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
	(Unaudited, in thousands, except per share data)							
Consolidated Statement of Operations Data:								
Revenue								
Advertising services	$637,821	$544,966	$534,524	$530,741	$640,680	$512,867	$452,278	$388,211
Data licensing and other	79,385	70,968	67,434	63,780	69,793	56,370	50,105	47,728
Total revenue	717,206	615,934	601,958	594,521	710,473	569,237	502,383	435,939
Costs and expenses[(1)]								
Cost of revenue	305,710	225,159	202,966	198,405	217,963	200,195	167,623	143,475
Research and development	202,128	177,049	178,511	155,794	210,058	207,937	198,907	189,746
Sales and marketing	260,603	224,436	236,619	236,171	277,189	208,797	201,948	183,557
General and administrative	92,392	67,379	70,238	63,267	72,442	57,545	64,909	65,777
Total costs and expenses	860,833	694,023	688,334	653,637	777,652	674,474	633,387	582,555
Loss from operations	(143,627)	(78,089)	(86,376)	(59,116)	(67,179)	(105,237)	(131,004)	(146,616)
Interest expense	(25,281)	(24,860)	(24,934)	(24,893)	(24,183)	(25,239)	(24,437)	(24,319)
Other income (expense), net	6,662	6,640	6,734	6,306	4,531	1,948	(695)	9,125
Loss before income taxes	(162,246)	(96,309)	(104,576)	(77,703)	(86,831)	(128,528)	(156,136)	(161,810)
Provision (benefit) for income taxes	4,808	6,562	2,641	2,028	3,405	3,162	(19,473)	632
Net loss	$(167,054)	$(102,871)	$(107,217)	$(79,731)	$(90,236)	$(131,690)	$(136,663)	$(162,442)
Net loss per share attributable to common								

stockholders:								
Basic and diluted	$(0.23)	$(0.15)	$(0.15)	$(0.12)	$(0.13)	$(0.20)	$(0.21)	$(0.25)
Other Financial Information:								
Adjusted EBITDA[2]	$215,107	$181,316	$174,602	$180,468	$191,418	$142,148	$120,188	$104,053
Non-GAAP net income[3]	$118,604	$91,741	$92,928	$102,723	$114,619	$66,984	$48,518	$46,508

[1] In the fourth quarter of 2016 and 2015, we incurred restructuring charges of $101.2 million and $12.9 million, respectively.

Costs and expenses include stock-based compensation expense as follows:

	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
	(Unaudited, in thousands)							
Cost of revenue	$6,511	$7,165	$7,858	$7,968	$8,360	$8,973	$10,486	$12,886
Research and development	81,840	87,163	90,916	75,579	94,707	100,673	103,121	103,036
Sales and marketing	27,751	41,227	45,856	46,101	36,750	37,889	39,607	42,658
General and administrative	21,993	22,972	23,065	21,268	18,432	18,386	21,929	24,225
Total stock-based compensation expense	$138,095	$158,527	$167,695	$150,916	$158,249	$165,921	$175,143	$182,805

(2) The following table presents a reconciliation of net loss to Adjusted EBITDA for each of the periods indicated:

	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
	(Unaudited, in thousands)							
Reconciliation of Net Loss to Adjusted EBITDA:								
Net loss	$(167,054)	$(102,871)	$(107,217)	$(79,731)	$(90,236)	$(131,690)	$(136,663)	$(162,442)
Stock-based compensation expense	138,095	158,527	167,695	150,916	158,249	165,921	175,143	182,805
Depreciation and amortization expense	119,390	100,878	93,283	88,621	87,446	81,464	76,049	67,864
Interest and other expense (income)	18,619	18,220	18,200	18,587	19,652	23,291	25,132	15,194
Provision (benefit) for income taxes	4,808	6,562	2,641	2,028	3,405	3,162	(19,473)	632
Restructuring charges	101,249	—	—	47	12,902	—	—	—
Adjusted EBITDA	$215,107	$181,316	$174,602	$180,468	$191,418	$142,148	$120,188	$104,053

(3) The following table presents a reconciliation of net loss to non-GAAP net income for each of the periods indicated:

	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
	(Unaudited, in thousands)							
Reconciliation of Net Loss to Non-GAAP Net Income:								
Net loss	$(167,054)	$(102,871)	$(107,217)	$(79,731)	$(90,236)	$(131,690)	$(136,663)	$(162,442)
Stock-based compensation expense	138,095	158,527	167,695	150,916	158,249	165,921	175,143	182,805
Amortization of acquired intangible assets	27,220	16,572	12,816	12,730	15,418	14,481	13,965	10,795
	19,070	18,650	18,570	18,370	18,046	17,495	17,006	16,638

Non-cash interest expense related to convertible notes								
Non-cash expense related to acquisitions	—	—	—	—	—	—	926	—
Income tax effects related to acquisitions	24	863	1,064	391	240	777	(21,859)	(1,288)
Restructuring charges	101,249	—	—	47	12,902	—	—	—
Non-GAAP net income	$118,604	$91,741	$92,928	$102,723	$114,619	$66,984	$48,518	$46,508

Credit Facility

In October 2013, we entered into a revolving credit agreement with certain lenders which provides for a $1.0 billion revolving unsecured credit facility maturing on October 22, 2018. Loans under the credit facility bear interest, at our option, at (i) a base rate based on the highest of the prime rate, the federal funds rate plus 0.50% and an adjusted LIBOR rate for a one-month interest period plus 1.00%, in each case plus a margin ranging from 0.00% to 0.75% or (ii) an adjusted LIBOR rate plus a margin ranging from 1.00% to 1.75%. This margin is determined based on our total leverage ratio for the preceding four fiscal quarter period. We are also obligated to pay other customary fees for a credit facility of this size and type, including an upfront fee and an unused commitment fee. Our obligations under the credit facility are guaranteed by one of our wholly-owned subsidiaries. In addition, the credit facility contains restrictions on payments including cash payment of dividends.

The revolving credit agreement was amended in September 2014 to increase the amount of indebtedness that we may incur and increase the amount of restricted payments that we may make. This amendment to the revolving credit agreement also provides that if our total leverage ratio exceeds 2.5:1.0 and if the amount outstanding under the credit facility exceeds $500.0 million, or 50% of the amount that may be borrowed under the credit facility, the credit facility will become secured by substantially all of our and certain of our subsidiaries' assets, subject to limited exceptions. As of December 31, 2016, no amounts were drawn under the credit facility.

Liquidity and Capital Resources

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Consolidated Statements of Cash Flows Data:			
Net loss	$(456,873)	$(521,031)	$(577,820)
Net cash provided by operating activities	763,055	383,066	81,796
Net cash used in investing activities	(598,008)	(902,421)	(1,097,272)
Net cash provided by (used in) financing activities	(83,975)	(62,998)	1,691,722

Our principal sources of liquidity are our cash, cash equivalents, and short-term investments in marketable securities. Our cash equivalents and marketable securities are invested primarily in short-term fixed income securities, including government and investment-grade debt securities and money market funds. In 2014, we also received net proceeds of approximately $1.86 billion from the issuance of the Notes, after deducting the initial purchasers' discount and debt issuance costs. Concurrently with the sales of the Notes, we entered into privately-negotiated convertible note hedge transactions with respect to our common stock for which we paid approximately $407.2 million and sold warrants for which we received approximately $289.3 million. We expect that we will continue to incur cash interest expense for the term of the Notes.

As of December 31, 2016, we had $3.77 billion of cash, cash equivalents and short-term investments in marketable securities, of which $180.6 million was held by our foreign subsidiaries. Under the current tax laws, if these funds are needed for our operations in the U.S., we would be required to accrue and pay U.S. taxes to repatriate certain of these funds. However, our intent is to indefinitely reinvest these funds outside of the U.S. and our current plans do not demonstrate a need to repatriate them to fund our U.S. operations. In addition, we have a revolving unsecured credit facility available to borrow up to $1.0 billion. We believe that our existing cash, cash equivalents and short-term investment balance, and our credit facility, together with cash generated from operations will be sufficient to meet our working capital and capital expenditure requirements for at least the next 12 months.

Operating Activities

Cash provided by operating activities consists of net loss adjusted for certain non-cash items including depreciation and amortization, stock-based compensation, amortization of discount on our Notes, deferred income taxes, non-cash restructuring charges, as well as the effect of changes in working capital and other activities.

Cash provided by operating activities in 2016 was $763.1 million, an increase in cash inflow of $380.0 million compared to 2015. Cash provided by operating activities was driven by a net loss of $456.9 million, as adjusted for the exclusion of non-cash expenses and other adjustments totaling $1.14 billion, of which $615.2 million was related to stock-based compensation expense, and the effect of changes in working capital and other carrying balances that resulted in cash outflow of $82.6 million.

Cash provided by operating activities in 2015 was $383.1 million, an increase in cash inflow of $301.3 million compared to 2014. Cash provided by operating activities was driven by a net loss of $521.0 million, as adjusted for the exclusion of non-cash expenses and other adjustments totaling $1.04 billion, of which $678.9 million was related to stock-based compensation expense, and the effect of changes in working capital and other carrying balances that resulted in cash outflow of $135.9 million.

Cash provided by operating activities in 2014 was $81.8 million, an increase in cash inflow of $80.4 million compared to 2013. Cash provided by operating activities was driven by a net loss of $577.8 million, as adjusted for the exclusion of non-cash expenses totaling $861.6 million, of which $631.6 million was related to stock-based compensation expense, and the effect of changes in working capital and other carrying balances that resulted in cash outflow of $202.0 million.

Investing Activities

Our primary investing activities consist of purchases of property and equipment, particularly purchases of servers and networking equipment, leasehold improvements for our facilities, purchases and disposal of marketable securities, strategic investments in privately-held companies, acquisitions of businesses and other activities.

Cash used in investing activities in 2016 was $598.0 million, a decrease in cash outflow of $304.4 million compared to 2015. The decrease in cash outflow was due to decreased purchases of marketable securities of $774.9 million, property and equipment of $128.6 million and other investments of $8.7 million, offset by a decrease in sales and maturities of marketable securities of $503.4 million, an increase in purchase of investments in privately-held companies of $71.0 million, and an increase in use of cash as acquisition consideration of $33.4 million.

Cash used in investing activities in 2015 was $902.4 million, a decrease in cash outflow of $194.9 million compared to 2014. The decrease in cash outflow was due to the increase in sales and maturities of marketable securities of $987.6 million and a reduction in use of cash as acquisition consideration of $111.8 million. Such increases in cash inflow were partially offset by increased purchases of marketable securities of $746.4 million, property and equipment of $145.7 million and other investments of $12.4 million.

Cash used in investing activities in 2014 was $1.10 billion, a decrease in cash outflow of $208.8 million compared to 2013. The decrease in cash outflow was due to an increase in the proceeds from maturities and sales of marketable securities of $1.82 billion offset by an increase in the purchases of marketable securities of $1.36 billion and a $247.2 million increase in expenditures on other investing activities, including business combinations, purchases of intangible assets, purchases of property and equipment and restricted cash.

We anticipate making capital expenditures in 2017 of approximately $300 million to $400 million, a portion of which we may finance through capital leases, as we continue to expand our co-located data centers.

Financing Activities

Our primary financing activities consist of issuances of securities (including the Notes, common stock issued under employee stock purchase plan, common stock issued in connection with our initial public offering and, in the past, private sales of convertible preferred stock), capital lease financing and stock option exercises by employees and other service providers.

Cash used in financing activities in 2016 was $84.0 million, an increase in cash outflow of $21.0 million compared to 2015. The increase in cash outflow was due to a $14.9 million decrease in proceeds from the issuance of shares of stock from ESPP, a net $13.3 million increase in tax payments related to net share settlements of equity awards and other activities, and a net $9.8 million decrease in proceeds from option exercises, offset by a reduction in repayments of capital lease obligations of $17.0 million.

Cash used in financing activities in 2015 was $63.0 million compared to $1.69 billion cash provided by financing activities in 2014. The decrease in cash inflow was due to the absence of any financing transactions in 2015 similar to the issuance of the Notes in 2014.

Cash provided by financing activities in 2014 was $1.69 billion, a decrease of $250.5 million in cash inflow compared to 2013. The decrease in cash inflow was primarily due to net proceeds of $1.86 billion from the issuance of convertible senior notes net of initial issuance discount reduced by the net cash outflow of $117.9 million from the purchase of convertible note hedges and sale of warrants closed in connection with the issuance of Notes in 2014 compared to net proceeds of $2.02 billion from issuance of common stock in connection with our initial public offering in 2013. In addition, we recorded an increase of $62.4 million in proceeds from option exercises and issuance of common stock under our employee stock purchase plan, partially offset by a $32.7 million increase in repayments of capital lease obligations.

Off Balance Sheet Arrangements

We do not have any off-balance sheet arrangements and did not have any such arrangements in 2016, 2015 or 2014.

Contractual Obligations

Our principal commitments consist of obligations under the Notes (including principal and coupon interest), capital and operating leases for equipment, office space and co-located data center facilities, as well as non-cancellable contractual commitments. The following table summarizes our commitments to settle contractual obligations in cash as of December 31, 2016.

	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(In thousands)				
2019 Notes	$942,013	$2,338	$939,675	$—	$—
2021 Notes	1,001,726	9,540	19,080	973,106	—
Operating lease obligations [1]	733,019	156,757	264,346	148,601	163,315
Capital lease obligations	152,932	85,886	67,046	—	—
Other contractual commitments [2]	138,410	100,160	38,250	—	—
Total contractual obligations	$2,968,100	$354,681	$1,328,397	$1,121,707	$163,315

[1] During the year ended December 31, 2016, we entered into several sublease agreements for office space that we are not fully utilizing. Under the sublease agreements, we will receive approximately $82.4 million in sublease income over the next five years.

[2] Other contractual commitments are non-cancelable contractual commitments primarily related to our infrastructure services, bandwidth and other services arrangements.

As of December 31, 2016, we had recorded liabilities of $5.8 million related to uncertain tax positions. Due to uncertainties in the timing of potential tax audits, the timing of the resolution of these positions is uncertain and we are unable to make a reasonably reliable estimate of the timing of payments in individual years beyond 12 months. As a result, this amount is not included in the above table.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with GAAP. In doing so, we have to make estimates and assumptions that affect our reported amounts of assets, liabilities, revenue and expenses, as well as related disclosure of contingent assets and liabilities. To the extent that there are material differences between these estimates and actual results, our financial condition or operating results would be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as critical accounting policies and estimates, which we discuss further below.

Revenue Recognition

We generate the substantial majority of our revenue from the sale of advertising services with the balance coming from data licensing and other arrangements. We generate our advertising revenue primarily from the sale of our three Promoted Products: (i) Promoted Tweets, (ii) Promoted Accounts and (iii) Promoted Trends. Promoted Tweets and Promoted Accounts are pay-for-performance advertising products priced through an auction. Promoted Trends are featured by geography and offered on a fixed-fee-per-day basis. Advertisers are obligated to pay when a user engages with a Promoted Tweet or follows a Promoted Account or when a Promoted Trend is displayed. These products may be sold in combination as a multiple element arrangement or separately on a stand-alone basis.

We also generate advertising revenue by selling to advertisers advertising products which we place on third party publishers' websites, applications or other offerings. To fulfill these transactions, we purchase advertising inventory from third party publishers' websites and applications where we have identified the advertisers' targeted audience and therefore incur traffic acquisition costs. In such transactions, we remain the primary obligor to our advertisers for the advertising services and products delivered, have pricing latitude, have discretion in the selection of third party publishers and bear credit risk. We might not generate advertising revenue in excess of traffic acquisition costs incurred. Therefore, we report advertising revenue generated from these transactions on a gross basis.

Fees for these advertising services are recognized in the period when advertising is delivered as evidenced by a user engaging with a Promoted Tweet in a manner satisfying the types of engagement selected by the advertisers, such as Tweet engagements (e.g., retweets, replies and likes), website clicks or conversions, mobile application installs or engagements, obtaining new followers, or video views, following a Promoted Account, through the display of a Promoted Trend on our platform, or completion of a transaction on an external website.

Data licensing revenue is generated based on monthly service fees charged to the data partners over the period in which Twitter data and data products are made available to them. Other revenue is primarily generated from service fees from transactions completed on our mobile ad exchange. Our mobile ad exchange enables buyers and sellers to purchase and sell advertising inventory and matches buyers and sellers. We have determined we are not the principal in the purchase and sale of advertising inventory in transactions between third party buyers and sellers on the exchange. Therefore, we report revenue related to our ad exchange services on a net basis.

Revenue is recognized only when (1) persuasive evidence of an arrangement exists; (2) the price is fixed or determinable; (3) the service is performed; and (4) collectability of the related fee is reasonably assured. While the majority of our revenue transactions are based on standard business terms and conditions, we also enter into sales agreements with advertisers and data partners that sometimes involve multiple elements.

For arrangements involving multiple deliverables, judgment is required to determine the appropriate accounting, including developing an estimate of the stand-alone selling price of each deliverable. When neither vendor-specific objective evidence nor third-party evidence of selling price exists, we use our best estimate of selling price (BESP) to allocate the arrangement consideration on a relative selling price basis to each deliverable. The objective of BESP is to determine the selling price of each deliverable when it is sold to advertisers on a stand-alone basis. In determining BESPs, we take into consideration various factors, including, but not limited to, prices we charge for similar offerings, sales volume, geographies, pricing strategies and market conditions. Multiple deliverable arrangements primarily consist of combinations of our pay-for-performance products, Promoted Tweets and Promoted Accounts, which are priced through an auction, and Promoted Trends, which are priced on a fixed-fee-per day per geography basis. For arrangements that include a combination of these products, we develop an estimate of the selling price for these products in order to allocate any potential discount to all advertising products in the arrangement. The estimate of selling price for pay-for-performance products is determined based on the winning bid price; the estimate of selling price for Promoted Trends is based on Promoted Trends sold on a stand-alone basis and/or separately priced in a bundled arrangement by reference to a list price by geography which is approved periodically. We believe the use of BESP results in revenue recognition in a manner consistent with the underlying economics of the transaction and allocates the arrangement consideration on a relative selling price basis to each deliverable.

Income Taxes

We are subject to income taxes in the United States and several foreign jurisdictions. Significant judgment is required in evaluating our uncertain tax positions and determining our provision for income taxes.

Although we believe we have adequately reserved for our uncertain tax positions, no assurance can be given that the final outcome of these matters will not be different. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit. To the extent that the final outcome of these matters is different than the amounts recorded, such differences may impact the provision for income taxes in the period in which such determination is made. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate, as well as any related interest or penalties.

Our effective tax rates have differed from the statutory rate primarily due to the tax impact of foreign operations, state taxes, certain benefits realized in recording the tax effects of business combinations, and the recording of U.S.

valuation allowance. Our future provision for income taxes could be adversely affected by earnings being lower than anticipated in countries where we have lower statutory rates and higher than anticipated in countries where we have higher statutory tax rates, changes in the valuation of our deferred tax assets or liabilities, or changes in tax laws, regulations or accounting principles. In addition, we are subject to examination of our income tax returns by tax authorities in the United States and foreign jurisdictions. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes.

Stock-Based Compensation

We account for stock-based compensation expense under the fair value recognition and measurement provisions in accordance with the applicable accounting standards which require all stock-based awards granted to employees to be measured based on the grant-date fair value.

The fair value of stock options granted and stock purchase rights provided under the employee stock purchase plan is estimated based on the Black-Scholes option pricing model which requires inputs of judgmental assumptions including the expected term of the award and stock price volatility. If any of the assumptions used in the fair value determination change significantly, stock-based compensation expense may differ materially.

We recognize the compensation expense only for those awards expected to meet the performance and service vesting condition on a straight-line basis over the requisite service period which is generally one year for performance vesting condition awards and four years for service vesting condition awards.

Through 2016, we estimated the forfeiture rate based on historical forfeitures of our stock-based awards and our expectations regarding future pre-vesting termination behavior of our employees. While the forfeiture rate used represents our best estimate, this estimate involves inherent uncertainties. To the extent the actual forfeitures differ from our estimates, stock-based compensation expense will be adjusted accordingly and may have a significant effect on our stock-based compensation expense.

Business Combinations

We account for acquisitions of entities that include inputs and processes and have the ability to create outputs as business combinations. The purchase price of the acquisition is allocated to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at the acquisition dates. The excess of the purchase price over those fair values is recorded as goodwill. During the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to the consolidated statements of operations.

Accounting for business combinations requires our management to make significant estimates and assumptions at the acquisition date, including estimated fair value of acquired intangible assets, estimated fair value of stock awards assumed from the acquirees that are included in the purchase price, estimated income tax assets and liabilities assumed from the acquirees, and determination of the fair value of contractual obligations, where applicable. The estimates of fair value require management to also make estimates of, among other things, future expected cash flows, discount rates or expected costs to reproduce an asset. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, these estimates are based on historical experience and information obtained from the management of the acquired companies and are inherently uncertain.

Impact of Recently Issued Accounting Standards

The impact of recently issued accounting standards is set forth in Note 2, Summary of Significant Accounting Policies, of the Notes to Consolidated Financial Statements under Item 8 of this Annual Report on Form 10-K.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

Interest Rate Fluctuation Risk

Our investment portfolio mainly consists of short-term fixed income securities, including government and investment-grade debt securities and money market funds. These securities are classified as available-for-sale and, consequently, are recorded in the consolidated balance sheets at fair value with unrealized gains or losses, net of tax reported as a separate component of accumulated other comprehensive loss. Our investment policy and strategy is focused on the preservation of capital and supporting our liquidity requirements. We do not enter into investments for trading or speculative purposes.

A rise in interest rates could have a material adverse impact on the fair value of our investment portfolio. Based on our investment portfolio balance as of December 31, 2016, a hypothetical increase in interest rates of 100 basis points would result in a decrease of approximately $14.6 million in the fair value of our available-for-sale securities. We currently do not hedge these interest rate exposures.

In 2014, we issued Notes with an aggregate principal amount of $1.89 billion. We carry the Notes at face value less amortized discount on the consolidated balance sheet. Since the Notes bear interest at fixed rates, we have no financial statement risk associated with changes in interest rates. However, the fair value of the Notes changes when the market price of our stock fluctuates or interest rates change.

Foreign Currency Exchange Risk

Transaction Exposure

We transact business in various foreign currencies and have international revenue, as well as costs denominated in foreign currencies, primarily the Euro, British Pound and Japanese Yen. This exposes us to the risk of fluctuations in foreign currency exchange rates. Accordingly, changes in exchange rates, and in particular a continuing strengthening of the U.S. dollar, would negatively affect our revenue and other operating results as expressed in U.S. dollars.

We have experienced and will continue to experience fluctuations in our net loss as a result of transaction gains or losses related to revaluing and ultimately settling certain asset and liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. Net realized and unrealized foreign currency gains were immaterial in 2016, 2015 and 2014. We currently utilize foreign currency forward contracts with financial institutions to reduce the risk that our earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the local currency of a subsidiary. These contracts are not designated as hedging instruments. We may in the future enter into other derivative financial instruments if it is determined that such hedging activities are appropriate to further reduce our foreign currency exchange risk. Based on our foreign currency exposures from monetary assets and liabilities net of our open hedge position, we estimated that a 5% change in exchange rates against the U.S. dollars would have resulted in a gain or loss of approximately $1.7 million as of December 31, 2016.

Translation Exposure

We are also exposed to foreign exchange rate fluctuations as we translate the financial statements of our foreign subsidiaries into U.S. dollars in consolidation. If there is a change in foreign currency exchange rates, the translating adjustments resulting from the conversion of our foreign subsidiaries' financial statements into U.S. dollars would result in a gain or loss recorded as a component of accumulated other comprehensive loss which is part of stockholders' equity.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Twitter, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of comprehensive loss, of stockholders' equity and of cash flows present fairly, in all material respects, the financial position of Twitter, Inc. and its subsidiaries at December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15.2 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

San Francisco, California

February 27, 2017

TWITTER, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except par value)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$988,598	$911,471
Short-term investments	2,785,981	2,583,877
Accounts receivable, net of allowance for doubtful accounts of $7,216 and $8,121 as of December 31, 2016 and December 31, 2015, respectively	650,650	638,694
Prepaid expenses and other current assets	226,967	247,750
Total current assets	4,652,196	4,381,792
Property and equipment, net	783,901	735,299
Intangible assets, net	95,334	141,015
Goodwill	1,185,315	1,122,728
Other assets	153,619	61,605
Total assets	$6,870,365	$6,442,439
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$122,236	$134,081
Accrued and other current liabilities	380,937	283,792
Capital leases, short-term	80,848	88,166
Total current liabilities	584,021	506,039
Convertible notes	1,538,967	1,455,095
Capital leases, long-term	66,837	59,695
Deferred and other long-term tax liabilities, net	7,556	2,978
Other long-term liabilities	68,049	50,585
Total liabilities	2,265,430	2,074,392
Commitments and contingencies (Note 14)		
Stockholders' equity:		
Preferred stock, $0.000005 par value-- 200,000 shares authorized; none issued and outstanding	—	—
Common stock, $0.000005 par value-- 5,000,000 shares authorized; 721,572 and 694,132 shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	4	3
Additional paid-in capital	7,224,534	6,507,087
Accumulated other comprehensive loss	(69,253)	(45,566)
Accumulated deficit	(2,550,350)	(2,093,477)
Total stockholders' equity	4,604,935	4,368,047
Total liabilities and stockholders' equity	$6,870,365	$6,442,439

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

TWITTER, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	Year Ended December 31,		
	2016	2015	2014
Revenue	$2,529,619	$2,218,032	$1,403,002
Costs and expenses			
Cost of revenue	932,240	729,256	446,309
Research and development	713,482	806,648	691,543
Sales and marketing	957,829	871,491	614,110
General and administrative	293,276	260,673	189,906
Total costs and expenses	2,896,827	2,668,068	1,941,868
Loss from operations	(367,208)	(450,036)	(538,866)
Interest expense	(99,968)	(98,178)	(35,918)
Other income (expense), net	26,342	14,909	(3,567)
Loss before income taxes	(440,834)	(533,305)	(578,351)
Provision (benefit) for income taxes	16,039	(12,274)	(531)
Net loss	$(456,873)	$(521,031)	$(577,820)
Net loss per share attributable to common stockholders:			
Basic	$(0.65)	$(0.79)	$(0.96)
Diluted	$(0.65)	$(0.79)	$(0.96)
Weighted-average shares used to compute net loss per share attributable to common stockholders:			
Basic	702,135	662,424	604,990
Diluted	702,135	662,424	604,990

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

TWITTER, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(In thousands)

	Year Ended December 31,		
	2016	2015	2014
Net loss	$(456,873)	$(521,031)	$(577,820)
Other comprehensive income (loss):			
Change in unrealized gain (loss) on investments in available-for-sale securities, net of tax	1,685	(3,019)	(877)
Change in foreign currency translation adjustment	(25,372)	(32,523)	(8,824)
Net change in accumulated other comprehensive loss	(23,687)	(35,542)	(9,701)
Comprehensive loss	$(480,560)	$(556,573)	$(587,521)

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

TWITTER, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands)

	Year Ended December 31,					
	2016		2015		2014	
	Shares	Amount	Shares	Amount	Shares	Amount
Common stock						
Balance, beginning of period	694,132	$3	642,385	$3	569,922	$3
Issuance of common stock in connection with RSU vesting	26,909	1	24,002	-	42,748	-
Issuance of common stock in connection with acquisitions	41	-	13,613	-	3,326	-
Issuance of restricted stock in connection with acquisitions accounted for as stock-based compensation	3,364	-	2,533	-	2,337	-
Exercise of stock options	2,864	-	10,992	-	22,447	-
Issuance of common stock upon purchases under employee stock purchase plan	2,039	-	1,525	-	1,887	-
Shares withheld related to net share settlement of equity awards	(878)	-	(281)	-	(307)	-
Cancellation of shares contributed by the CEO	(6,814)	-	-	-	-	-
Other activities	(85)	-	(637)	-	25	-
Balance, end of period	721,572	$4	694,132	$3	642,385	$3
Additional paid-in capital						
Balance, beginning of period	-	$6,507,087	-	$5,208,870	-	$3,944,952
Issuance of common stock in connection with acquisitions	-	735	-	516,538	-	147,958
Exercise of stock options	-	7,714	-	17,914	-	28,881
Issuance of common stock upon purchases under employee stock purchase plan	-	24,431	-	39,295	-	42,402
Shares withheld related to net share settlement of equity awards	-	(15,598)	-	(11,101)	-	(17,053)
Stock-based compensation	-	695,525	-	729,193	-	672,371
Equity component of the convertible note issuance, net	-	-	-	-	-	505,982
Purchase of convertible note hedge	-	-	-	-	-	(407,169)
Issuance of warrants	-	-	-	-	-	289,272
Other activities	-	4,640	-	6,378	-	1,274
Balance, end of period	-	$7,224,534	-	$6,507,087	-	$5,208,870
Accumulated other comprehensive loss						

Balance, beginning of period	-	$(45,566)	-	$(10,024)	-	$(323)
Other comprehensive income (loss)	-	(23,687)	-	(35,542)	-	(9,701)
Balance, end of period	-	$(69,253)	-	$(45,566)	-	$(10,024)
Accumulated deficit						
Balance, beginning of period	-	$(2,093,477)	-	$(1,572,446)	-	$(994,626)
Net loss	-	(456,873)	-	(521,031)	-	(577,820)
Balance, end of period	-	$(2,550,350)	-	$(2,093,477)	-	$(1,572,446)
Total stockholders' equity	721,572	$4,604,935	694,132	$4,368,047	642,385	$3,626,403

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

TWITTER, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended December 31,		
	2016	2015	2014
Cash flows from operating activities			
Net loss	$(456,873)	$(521,031)	$(577,820)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	402,172	312,823	208,165
Stock-based compensation expense	615,233	682,118	631,597
Amortization of discount on convertible notes	74,660	69,185	18,823
Changes in bad debt provision	3,958	5,765	4,632
Deferred income tax	(4,775)	(28,125)	(9,609)
Non-cash restructuring	25,934	(3,194)	—
Other adjustments	20,150	1,438	7,983
Changes in assets and liabilities, net of assets acquired and liabilities assumed from acquisitions:			
Accounts receivable	(22,969)	(216,585)	(177,583)
Prepaid expenses and other assets	7,101	(50,170)	(165,395)
Accounts payable	(7,112)	76,355	18,059
Accrued and other liabilities	105,576	54,487	122,944
Net cash provided by operating activities	763,055	383,066	81,796
Cash flows from investing activities			
Purchases of property and equipment	(218,657)	(347,280)	(201,630)
Purchases of marketable securities	(2,908,611)	(3,683,488)	(2,937,033)
Proceeds from maturities of marketable securities	2,518,631	2,821,745	2,029,518
Proceeds from sales of marketable securities	183,154	383,413	188,092
Changes in restricted cash	(4,760)	(3,549)	(11,042)
Purchases of investments in privately-held companies	(81,502)	(10,500)	—
Business combinations, net of cash acquired	(85,082)	(51,644)	(163,477)
Other investing activities	(1,181)	(11,118)	(1,700)
Net cash used in investing activities	(598,008)	(902,421)	(1,097,272)
Cash flows from financing activities			
Proceeds from issuance of convertible notes	—	—	1,889,000
Convertible notes initial issuance discount	—	—	(28,810)
Purchases of convertible note hedges	—	—	(407,169)
Proceeds from issuance of warrants	—	—	289,272
Taxes paid related to net share settlement of equity awards	(15,598)	(11,101)	(17,053)
Repayments of capital lease obligations	(100,558)	(117,535)	(103,135)
Proceeds from exercise of stock options	7,540	17,361	28,658
Proceeds from issuances of common stock under employee stock purchase plan	24,431	39,295	42,402
Other financing activities	210	8,982	(1,443)

Net cash provided by (used in) financing activities	(83,975)	(62,998)	1,691,722
Net increase (decrease) in cash and cash equivalents	81,072	(582,353)	676,246
Foreign exchange effect on cash and cash equivalents	(3,945)	(16,900)	(6,532)
Cash and cash equivalents at beginning of period	911,471	1,510,724	841,010
Cash and cash equivalents at end of period	$988,598	$911,471	$1,510,724
Supplemental cash flow data			
Interest paid in cash	$12,953	$15,985	$10,000
Taxes paid in cash	$14,532	$8,229	$14,895
Supplemental disclosures of non-cash investing and financing activities			
Common stock issued in connection with acquisitions	$1,341	$516,538	$147,958
Equipment purchases under capital leases	$100,281	$31,215	$140,685
Changes in accrued property and equipment purchases	$5,738	$3,902	$6,562

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

TWITTER, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. The Company

Twitter, Inc. (“Twitter” or the “Company”) was incorporated in Delaware in April 2007, and is headquartered in San Francisco, California. Twitter offers products and services for users, advertisers and data partners.

Note 2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of the Company’s consolidated financial statements in conformity with generally accepted accounting principles in the United States of America (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, as well as related disclosure of contingent assets and liabilities. Actual results could differ materially from the Company’s estimates. To the extent that there are material differences between these estimates and actual results, the Company’s financial condition or operating results will be affected. The Company bases its estimates on past experience and other assumptions that the Company believes are reasonable under the circumstances, and the Company evaluates these estimates on an ongoing basis. Certain prior period amounts have been reclassified to conform to the current period presentation.

Revenue Recognition

The Company generates the substantial majority of its revenue from the sale of advertising services and, to a lesser extent, from entering into data licensing and other arrangements.

The Company’s advertising services include three primary products: (i) Promoted Tweets, (ii) Promoted Accounts and (iii) Promoted Trends. Promoted Tweets and Promoted Accounts are pay-for-performance advertising products priced through an auction. Promoted Trends are featured by geography and offered on a fixed-fee-per-day basis. Advertisers are obligated to pay when a user engages with a Promoted Tweet or follows a Promoted Account or when a Promoted Trend is displayed. These products may be sold in combination as a multiple element arrangement or separately on a stand-alone basis.

The Company also generates advertising revenue by selling to advertisers advertising products which it places on third party publishers’ websites, applications or other offerings. To fulfill these transactions, the Company purchases advertising inventory from third party publishers’ websites and applications where it has identified the advertisers’ targeted audience and therefore incurs traffic acquisition costs. In such transactions, the Company remains the primary

obligor to its advertisers for the advertising services and products delivered, has pricing latitude, has discretion in the selection of third party publishers and bears credit risk. The Company might not generate advertising revenue in excess of traffic acquisition costs incurred. Therefore, the Company reports advertising revenue generated from these transactions on a gross basis.

Fees for these advertising services are recognized in the period when advertising is delivered as evidenced by a user engaging with a Promoted Tweet in a manner satisfying the types of engagement selected by the advertisers, such as Tweet engagements (e.g., retweets, replies and likes), website clicks or conversions, mobile application installs or engagements, obtaining new followers, or video views, following a Promoted Account, through the display of a Promoted Trend on the Company’s platform, or completion of a transaction on an external website. Data licensing revenue is generated based on monthly service fees charged to the data partners over the period in which the Company’s data and data products are made available to them. Other revenue is primarily generated from service fees from transactions completed on the Company’s mobile ad exchange. The Company’s mobile ad exchange enables buyers and sellers to purchase and sell advertising inventory and matches buyers and sellers. The Company has determined it is not the principal in the purchase and sale of advertising inventory in transactions between third party buyers and sellers on the exchange. Therefore, the Company reports revenue related to its ad exchange services on a net basis.

Revenue is recognized only when (1) persuasive evidence of an arrangement exists; (2) the price is fixed or determinable; (3) the service is performed; and (4) collectability of the related fee is reasonably assured. While the majority of the Company's revenue transactions are based on standard business terms and conditions, the Company also enters into sales agreements with advertisers and data partners that sometimes involve multiple elements.

For arrangements involving multiple deliverables, judgment is required to determine the appropriate accounting, including developing an estimate of the stand-alone selling price of each deliverable. When neither vendor-specific objective evidence nor third-party evidence of selling price exists, the Company uses its best estimate of selling price (BESP) to allocate the arrangement consideration on a relative selling price basis to each deliverable. The objective of BESP is to determine the selling price of each deliverable when it is sold to advertisers on a stand-alone basis. In determining BESPs, the Company takes into consideration various factors, including, but not limited to, prices the Company charges for similar offerings, sales volume, geographies, pricing strategies and market conditions. Multiple deliverable arrangements primarily consist of combinations of the Company's pay-for-performance products, Promoted Tweets and Promoted Accounts, which are priced through an auction, and Promoted Trends, which are priced on a fixed-fee-per day per geography basis. For arrangements that include a combination of these products, the Company develops an estimate of the selling price for these products in order to allocate any potential discount to all advertising products in the arrangement. The estimate of selling price for pay-for-performance products is determined based on the winning bid price; the estimate of selling price for Promoted Trends is based on Promoted Trends sold on a stand-alone basis and/or separately priced in a bundled arrangement by reference to a list price by geography which is approved periodically. The Company believes the use of BESP results in revenue recognition in a manner consistent with the underlying economics of the transaction and allocates the arrangement consideration on a relative selling price basis to each deliverable.

Cost of Revenue

Cost of revenue includes infrastructure costs, other direct costs including content costs, amortization expense of technology acquired through acquisitions and capitalized labor costs, allocated facilities costs, as well as traffic acquisition costs ("TAC"). Infrastructure costs consist primarily of data center costs related to the Company's co-located facilities, which include lease and hosting costs, related support and maintenance costs and energy and bandwidth costs, as well as depreciation of its servers and networking equipment, and personnel-related costs, including salaries, benefits and stock-based compensation, for its operations teams. TAC consists of costs incurred with third parties in connection with the sale to advertisers of advertising products that the Company places on third-party publishers' websites, applications or other offerings collectively resulting from acquisitions and from the Company's organically-built advertising network, Twitter Audience Platform.

Stock-Based Compensation Expense

The Company accounts for stock-based compensation expense under the fair value recognition and measurement provisions of GAAP. Stock-based awards granted to employees are measured based on the grant-date fair value.

The Company recognizes the compensation expense only for those awards expected to meet the performance and service vesting condition on a straight-line basis over the requisite service period which is generally one year for performance vesting condition awards and four years for service vesting condition awards.

The Company estimates the fair value of stock options granted and stock purchase rights provided under the Company's employee stock purchase plan using the Black-Scholes option pricing model on the dates of grant. Calculating the fair value using the Black-Scholes model requires various judgmental assumptions including the expected term and stock price volatility. The Company estimates the expected term of stock options granted based on the simplified method. The Company estimates the expected volatility of its common stock on the dates of grant based

on a combination of the Company's historical stock price volatility and implied volatility in the Company's traded options when such information is available. When the Company's historical and implied volatility data are not available for the related awards' expected term, an average of volatility rates including the historical volatility of a group of comparable, publicly-traded companies is used. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. Expected dividend yield is zero percent as the Company has not paid and does not anticipate paying dividends on its common stock. The compensation expense related to stock options and employee stock purchase rights is recognized on a straight-line basis over the requisite service period.

The Company issues restricted stock subject to a lapsing right of repurchase to continuing employees of certain acquired companies. Since these issuances are subject to post-acquisition employment, the Company accounts for them as post-acquisition stock-based compensation expense. The grant-date fair value of restricted stock granted in connection with acquisitions is recognized as stock-based compensation expense on a straight-line basis over the requisite service period.

Stock-based compensation expense is recorded net of estimated forfeitures. Through 2016, the Company estimated the forfeiture rate based on historical forfeitures of stock-based awards and adjusted the rate to reflect changes in facts and circumstances, if any.

Acquisitions

The Company accounts for acquisitions of entities that include inputs and processes and have the ability to create outputs as business combinations. The purchase price of the acquisition is allocated to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at the acquisition dates. The excess of the purchase price over those fair values is recorded as goodwill. During the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to the consolidated statements of operations.

Investments in Privately-Held Companies

The Company makes strategic investments in privately-held companies and assesses the accounting for these investments under the equity or cost method. The Company also evaluates each investee to determine if the investee is a variable interest entity and, if so, whether the Company is the primary beneficiary of the variable interest entity.

The Company periodically evaluates the carrying value of the investments in privately-held companies, when events and circumstances indicate that the carrying amount of the investment may not be recovered. The Company estimates the fair value of the investments to assess whether impairment losses shall be recorded using Level 3 inputs. These investments include the Company’s holdings in privately-held companies that are not exchange traded and therefore not supported with observable market prices; hence, the Company determines the fair value by reviewing equity valuation reports, current financial results and long-term plans of the private companies.

Restructuring and Other Charges

The Company records charges associated with management-approved restructuring plans to reduce headcount and for leases. Restructuring costs are recognized when the related liability is incurred and measured at fair value. The Company accrues a liability for employee terminations when all of the following conditions have been met: management, having the authority to approve the action, commits to a plan of termination; the plan identifies the number of employees to be terminated, their job classifications and their locations, and the expected completion date; the plan establishes the terms of the benefit arrangement in sufficient detail to enable employees to determine the type and amount of benefits they will receive if they are involuntarily terminated; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

The Company accrues for costs to terminate an operating lease or other contract when it terminates the contract in accordance with the contract terms.

A liability for costs that will continue to be incurred under a contract for the remaining term without economic benefits to the Company is recognized and measured when the entity meets the cease-use date. In recording liabilities for cease-use facilities, the Company makes various assumptions, including the time period over which the facilities are expected to be vacant, expected sublease terms and expected sublease rates. The estimates involve a number of risks and uncertainties, some of which are beyond the Company's control, including future real estate market conditions and the Company's ability to successfully enter into sublease agreements with terms as favorable as those assumed when arriving at the estimates. The Company regularly evaluates a number of factors to determine the appropriateness and reasonableness of the restructuring and lease loss accruals including the various assumptions noted above. If actual results differed significantly from its estimates, the Company may be required to adjust the restructuring and lease loss accruals in the future.

Operating and Capital Leases

The Company leases office space and data center facilities under operating leases. Certain lease agreements contain free or escalating rent payment provisions. The Company recognizes rent expense under such leases on a straight-line basis over the term of the lease. Lease renewal periods are considered on a lease-by-lease basis in determining the lease term.

The Company also has entered into server and networking equipment lease arrangements with original lease terms ranging from three to four years. The Company's server and networking equipment leases typically are accounted for as capital leases as they meet one or more of the four capital lease classification criteria. Assets acquired under capital leases are amortized over their estimated useful life. As of December 31, 2016 and 2015, the Company had capital lease obligations included in short-term and long-term capital lease obligations in the consolidated balance sheets of $147.7 million and $147.9 million, respectively. In the years ended December 31, 2016, 2015 and 2014, the Company recorded approximately $5.5 million, $8.8 million and $10.2 million, respectively, of interest expense in relation to these capital lease arrangements.

Cash, Cash Equivalents and Investments

The Company invests its excess cash primarily in short-term fixed income securities, including government and investment-grade debt securities and money market funds. The Company classifies all liquid investments with stated maturities of three months or less from date of purchase as cash equivalents. The Company classifies all marketable securities for use in current operations, even if the security matures beyond 12 months, and presents them as short-term investments in the consolidated balance sheets.

As of December 31, 2016 and 2015, the Company has recorded restricted cash balances of $9.4 million and $3.0 million, respectively, within prepaid expenses and other current assets and $29.6 million and $31.1 million, respectively, in other assets on the accompanying consolidated balance sheets based upon the term of the remaining restrictions. These restricted cash balances are primarily cash deposits to back letters of credit related to certain property leases.

The Company determines the appropriate classification of its investments in marketable securities at the time of purchase and reevaluates such designation at each balance sheet date. The Company has classified and accounted for its marketable securities as available-for-sale. After considering the Company's capital preservation objectives, as well as its liquidity requirements, the Company may sell securities prior to their stated maturities. The Company carries its available-for-sale securities at fair value, and reports the unrealized gains and losses, net of taxes, as a component of stockholders' equity, except for unrealized losses determined to be other-than-temporary which are recorded as other income (expense), net. The Company determines any realized gains or losses on the sale of marketable securities on a specific identification method and records such gains and losses as a component of other income (expense), net. Interest earned on cash, cash equivalents, and marketable securities was $24.3 million, $9.1 million, and $1.9 million during the years ended December 31, 2016, 2015 and 2014, respectively. These balances are recorded in other income (expense), net in the accompanying consolidated statements of operations.

The Company evaluates the investments periodically for possible other-than-temporary impairment. A decline in fair value below the amortized costs of debt securities is considered an other-than-temporary impairment if the Company has the intent to sell the security or it is more likely than not that the Company will be required to sell the security before recovery of the entire amortized cost basis. In those instances, an impairment charge equal to the difference between the fair value and the amortized cost basis is recognized in earnings. Regardless of the Company's intent or requirement to sell a debt security, impairment is considered other-than-temporary if the Company does not expect to recover the entire amortized cost basis.

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Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentration of credit risk consist primarily of cash, cash equivalents, short-term investments and accounts receivable. The primary focus of the Company's investment strategy is to preserve capital and meet liquidity requirements. The Company's investment policy addresses the level of credit exposure by limiting the concentration in any one corporate issuer or sector and establishing a minimum allowable credit rating. To manage the risk exposure, the Company invests cash equivalents and short-term investments in a variety of fixed income securities, including government and investment-grade debt securities and money market funds. The Company places its cash primarily in checking and money market accounts with reputable financial institutions. Deposits held with these financial institutions may exceed the amount of insurance provided on such deposits, if any.

The Company's accounts receivable are typically unsecured and are derived from customers around the world in different industries. The Company performs ongoing credit evaluations of its customers and maintains allowances for potential credit losses. Historically, such losses have been within management's expectations. As of December 31, 2016 and 2015, no single customer accounted for more than 10% of the Company's net accounts receivable balance. No single customer accounted for more than 10% of the Company's revenue in the years ended December 31, 2016, 2015 and 2014.

The Company's note hedge transactions, entered into in connection with the Notes, as defined and further described in Note 4—Fair Value Measurements, and its derivative financial instruments expose the Company to credit risk to the extent that its counterparties may be unable to meet the terms of the transactions. The Company mitigates this risk by limiting its counterparties to major financial institutions.

Accounts Receivable, Net

The Company records accounts receivable at the invoiced amount. The Company maintains an allowance for doubtful accounts to reserve for potentially uncollectible receivable amounts. In evaluating the Company's ability to collect outstanding receivable balances, the Company considers various factors including the age of the balance, the creditworthiness of the customer, which is assessed based on ongoing credit evaluations and payment history, and the customer's current financial condition.

Property and Equipment, Net

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or the estimated useful life. The estimated useful lives of property and equipment are described below:

Property and Equipment	Estimated Useful Life
Computer hardware, networking and office equipment	Three to five years
Computer software	One to four years
Furniture and fixtures	Five years
Leasehold improvements	Lesser of estimated useful life or remaining lease term

Costs of maintenance and repairs that do not improve or extend the lives of the respective assets are expensed as incurred. Upon retirement or sale, the cost and related accumulated depreciation are removed from the balance sheet

and the resulting gain or loss is reflected in operating expenses.

Capitalization of Interest

Interest costs is capitalized for assets that are constructed for the Company's own internal use, this includes internally developed software and property and equipment, for the period of time to get them ready for its intended use. During the years ended December 31, 2016 and 2015, the Company capitalized $4.3 million and $5.0 million of interest expense, respectively. Capitalized interest was not material in 2014.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net tangible and intangible assets acquired in a business combination. Goodwill is not amortized, but is tested for impairment at least annually or more frequently if events or changes in circumstances indicate that the asset may be impaired. The Company's impairment tests are based on a single operating segment and reporting unit structure. If the carrying value of the reporting unit exceeds its fair value, the second step of the test is performed by comparing the carrying value of the goodwill in the reporting unit to its implied fair value. An impairment charge is recognized for the excess of the carrying value of goodwill over its implied fair value.

The Company conducted its annual goodwill impairment test during the fourth quarter of 2016 and determined that goodwill was not impaired. As such, no impairment charge was recorded in any of the periods presented in the accompanying consolidated financial statements.

Intangible Assets

Intangible assets are carried at cost and amortized on a straight-line basis over their estimated useful lives of up to eleven years. The Company reviews identifiable amortizable intangible assets to be held and used for impairment whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable. Determination of recoverability is based on the lowest level of identifiable estimated undiscounted cash flows resulting from use of the asset and its eventual disposition. Measurement of any impairment loss is based on the excess of the carrying value of the asset over its fair value. There has been no impairment charges recorded in any of the periods presented in the accompanying consolidated financial statements.

Fair Value Measurements

The Company classifies and discloses assets and liabilities measured at fair value on a recurring basis, as well as fair value measurements of assets and liabilities measured on a nonrecurring basis in periods subsequent to initial measurement, in a three-tier fair value hierarchy as described below. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs that may be used to measure fair value are as follows:

Level 1—Observable inputs, such as quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Internal Use Software and Website Development Costs

The Company capitalizes certain costs incurred in developing software programs or websites for internal use. In the years ended December 31, 2016, 2015 and 2014, the Company capitalized costs totaling approximately $139.0

million, $92.8 million and $79.5 million, respectively. Capitalized internal use software development costs are included in property and equipment, net. Included in the capitalized amounts above are $73.9 million, $50.3 million and $40.8 million of stock-based compensation expense in the years ended December 31, 2016, 2015 and 2014, respectively.

The estimated useful life of costs capitalized is evaluated for each specific project and is one to four years. In the years ended December 31, 2016, 2015 and 2014, the amortization of capitalized costs included in cost of revenue totaled approximately $74.6 million, $37.8 million and $15.2 million, respectively.

Income Taxes

The Company accounts for its income taxes using the asset and liability method whereby deferred tax assets and liabilities are determined based on temporary differences between the bases used for financial reporting and income tax reporting purposes, as well as for operating loss and tax credit carryforwards. Deferred income taxes are provided based on the enacted tax rates expected to be in effect at the time such temporary differences are expected to reverse. A valuation allowance is provided for deferred tax assets if it is more-likely-than-not that the Company will not realize those tax assets through future operations.

The Company evaluates and accounts for uncertain tax positions using a two-step approach. Recognition (step one) occurs when the Company concludes that a tax position, based solely on its technical merits, is more-likely-than-not to be sustainable upon examination. Measurement (step two) determines the amount of benefit that is greater than 50% likely to be realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. De-recognition of a tax position that was previously recognized would occur when the Company subsequently determines that a tax position no longer meets the more-likely-than-not threshold of being sustained.

Although the Company believes that it has adequately reserved for uncertain tax positions, the Company can provide no assurance that the final tax outcome of these matters will not be materially different. The Company makes adjustments to these reserves when facts and circumstances change, such as the closing of a tax audit, the lapsing of a statute, or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made and could have a material impact on the Company’s financial position and results of operations.

Foreign Currency

The functional currency of the Company's foreign subsidiaries is generally the local currency. The financial statements of these subsidiaries are translated into U.S. dollars using period-end rates of exchange for assets and liabilities, historical rates of exchange for equity, and average rates of exchange for revenue and expenses. Translation gains (losses) are recorded in accumulated other comprehensive income (loss) as a component of stockholders’ equity. Unrealized foreign exchange gains and losses due to re-measurement of monetary assets and liabilities denominated in non-functional currencies as well as realized foreign exchange gains and losses on foreign exchange transactions are recorded in other income (expense), net in the accompanying consolidated statements of operations.

Advertising Costs

Advertising costs are expensed when incurred and are included in sales and marketing expense in the accompanying consolidated statements of operations. Advertising expense totaled $114.3 million, $119.7 million and $46.6 million for the years ended December 31, 2016, 2015 and 2014 respectively.

Comprehensive Loss

Comprehensive loss consists of two components, net loss and other comprehensive income (loss). Other comprehensive income (loss) refers to gains and losses that are recorded as an element of stockholders’ equity and are excluded from net loss. The Company’s other comprehensive income (loss) is comprised of unrealized gains or losses on available-for-sale securities, net of tax, and foreign currency translation adjustments.

Recent Accounting Pronouncements

Recently adopted accounting pronouncement

In June 2014, the Financial Accounting Standards Board (“FASB”) issued a new accounting standard update on stock-based compensation when the terms of an award provide that a performance target could be achieved after the requisite service period. The new guidance requires that a performance target that affects vesting, and that could be achieved after the requisite service period, be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant-date fair value of the award. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the periods for which the requisite service has already been rendered. The Company adopted this guidance prospectively during the year ended December 31, 2016, and the adoption had no impact to the Company’s financial statements.

In February 2015, the FASB issued a new accounting standard update on consolidation analysis. The new guidance amends the current consolidation guidance with respect to the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. This guidance became effective for reporting periods beginning after December 15, 2015. The Company adopted this guidance retrospectively during the year ended December 31, 2016, and the adoption had no impact on the Company's financial statements.

In April 2015, the FASB issued a new accounting standard update on the presentation of debt issuance costs. The new guidance requires the debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability. The Company adopted this guidance retrospectively during the year ended December 31, 2016 and the adoption had an immaterial impact on the Company's financial statements.

In September 2015, the FASB issued a new accounting standard update on simplifying the accounting for measurement-period adjustments in business combinations. The new guidance requires that the adjustments to provisional amounts that are identified during the measurement period be recognized in the reporting period when the adjustments are determined. In addition, the effect on earnings of changes as a result of the change to the provisional amounts is required to be recorded in the same period's financial statements. The Company adopted this guidance prospectively on January 1, 2016, and the adoption had no impact on the Company's financial statements.

Recently issued accounting pronouncements not yet adopted

In May 2014, the FASB issued a new accounting standard update on revenue recognition from contracts with customers. The new guidance will replace all current GAAP guidance on this topic and eliminate industry-specific guidance. According to the new guidance, revenue is recognized when promised goods or services are transferred to customers in an amount that reflects the consideration for which the Company expects to be entitled in exchange for those goods or services. The guidance will be effective for fiscal years and interim periods with those fiscal years, beginning after December 15, 2017 and can be applied either retrospectively to each period presented or as a cumulative-effect adjustment as of the date of adoption. In March 2016, April 2016, May 2016 and December 2016, the FASB further amended the guidance to clarify the implementation on principal versus agent considerations, the identification of performance obligation and the licensing implementation guidance, to provide narrow-scope improvements and practical expedients, and technical corrections and improvements. The Company will adopt this standard effective January 1, 2018 and currently anticipates adopting the standard using the modified retrospective method. The Company is still in the process of completing its analysis of the impact this standard will have on the consolidated financial statements. Specifically, while the Company has not yet finalized its analysis of the recognition impact this standard will have on advertising revenue, the Company does not expect the impact to be material; the Company is still assessing the recognition impact of adopting this standard on data licensing and other revenue; and the Company has not completed its assessment of the presentation impact of adoption of the new principal versus agent guidance on its arrangements.

In January 2016, the FASB issued a new accounting standard update on the classification and measurement of financial instruments. The new guidance principally affects accounting standards for equity investments, financial liabilities where the fair value option has been elected, and the presentation and disclosure requirements for financial instruments. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. The Company is evaluating the impact of adopting this new accounting standard update on the financial statements and related disclosures.

In February 2016, the FASB issued a new accounting standard update on leases. The new guidance requires lessees to recognize right-of-use assets and lease liabilities for operating leases, initially measured at the present value of the lease payments, on the balance sheet. In addition, it requires lessees to recognize a single lease cost, calculated so that

the cost of the lease is allocated over the lease term, generally on a straight-line basis. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The Company is evaluating the impact of adopting this new accounting standard update on the financial statements and related disclosures and anticipates this new guidance will materially impact the Company's financial statements given the Company has a significant number of operating leases.

In March 2016, the FASB issued a new accounting standard update on simplifying the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The new guidance also allows an entity to account for forfeitures when they occur. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The Company will adopt this new guidance during the three months ending March 31, 2017. Adoption will require all tax benefits in excess of stock-based compensation costs to be recorded in the consolidated statements of operations as a component of the provision for income taxes, whereas they are currently recorded in equity. This change is required to be applied prospectively to excess tax benefits resulting from settlements after the date of adoption. For excess tax benefits not previously recognized, the Company will be required to apply the modified retrospective method with a cumulative-effect adjustment to opening accumulated deficit. In the quarter ending March 31, 2017, the Company will recognize deferred tax assets for its accumulated net operating losses related to excess tax benefits as of December 31, 2016 not previously recognized. However, given the valuation allowance placed on substantially all of the deferred tax assets, the recognition upon adoption is not expected to have a material impact on the Company's accumulated deficit. Additionally, the consolidated statements of cash flows will include excess tax benefits as an operating activity, with the prior periods adjusted accordingly, as a result of the adoption. Finally, the Company will elect to account for forfeitures as they occur, rather than estimate expected forfeitures.

In June 2016, the FASB issued a new accounting standard update on the measurement of credit losses on financial instruments. The new guidance requires financial assets measured at amortized cost to be presented at the net amount expected to be collected and available-for-sale debt securities to record credit losses through an allowance for credit losses. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted as early as of the fiscal years beginning after December 15, 2018. The Company is evaluating the impact of adopting this new accounting standard update on the financial statements and related disclosures.

In August 2016, the FASB issued a new accounting standard update on the statement of cash flows. The new guidance clarifies classification of certain cash receipts and cash payments in the statement of cash flows. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. The Company is evaluating the impact of adopting this new accounting standard update on the financial statements and related disclosures.

In October 2016, the FASB issued a new accounting standard update on simplifying the accounting for income taxes related to intra-entity asset transfers. The new guidance requires an entity to recognize the tax expense from the sale of an asset in the seller's tax jurisdiction when the transfers occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. The modified retrospective approach will be required for transition to the new guidance, with a cumulative-effect adjustment recorded in retained earnings as of the period of adoption. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted only in the first quarter of 2017. The Company is evaluating the impact of adopting this new accounting standard update on the financial statements and related disclosures.

In November 2016, the FASB issued a new accounting standard update on the presentation of restricted cash in the statement of cash flows. The new guidance requires an entity to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows, and an entity will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. The Company is evaluating the impact of adopting this new accounting standard update on the financial statements and related disclosures.

In January 2017, the FASB issued a new accounting standard update on narrowing the definition of a business. The new guidance requires an entity to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets; if so, the set of transferred assets and activities is not a business. The guidance also requires a business to include at least one substantive process and narrows the definition of outputs. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. The Company plans to early adopt this new accounting standard update during the three months ended March 31, 2017. Adoption is expected to have no impact on the Company’s financial statements.

In January 2017, the FASB issued a new accounting standard update on simplifying the accounting for goodwill impairment. The new guidance eliminates the requirement to calculate the implied fair value of goodwill (i.e., Step 2 of the goodwill impairment test) to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value. This guidance will be effective in fiscal year 2020 and will be applied prospectively. Early adoption is permitted for any impairment tests performed after January 1, 2017. The Company plans to early adopt this new accounting standard update during fiscal year 2017. Adoption is not expected to have a material impact on the Company's financial statements.

Note 3. Cash, Cash Equivalents and Short-term Investments

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	December 31, 2016	December 31, 2015
Cash and cash equivalents:		
Cash	$253,808	$300,363
Money market funds	422,515	141,700
U.S. government and agency securities including treasury bills	12,639	—
Corporate notes, commercial paper and certificates of deposit	299,636	469,408
Total cash and cash equivalents	$988,598	$911,471
Short-term investments:		
U.S. government and agency securities including treasury bills	$1,183,768	$1,156,418
Corporate notes, commercial paper and certificates of deposit	1,602,213	1,427,459
Total short-term investments	$2,785,981	$2,583,877

The following tables summarize unrealized gains and losses related to available-for-sale securities classified as short-term investments on the Company's consolidated balance sheets as of December 31, 2016 and 2015 (in thousands):

	December 31, 2016			
	Gross Amortized Costs	Gross Unrealized Gains	Gross Unrealized Losses	Aggregated Estimated Fair Value
U.S. government and agency securities including treasury bills	$1,185,274	$ 136	$ (1,642)	$1,183,768

Corporate notes, commercial paper and certificates of deposit	1,603,048	114	(949)	1,602,213
Total available-for-sale securities classified as short-term investments	$2,788,322	$ 250	$ (2,591)	$2,785,981

	December 31, 2015			
	Gross Amortized Costs	Gross Unrealized Gains	Gross Unrealized Losses	Aggregated Estimated Fair Value
U.S. government and agency securities including treasury bills	$1,158,479	$ 6	$ (2,067)	$1,156,418
Corporate notes, certificates of deposit and commercial paper	1,429,374	21	(1,936)	1,427,459
Total available-for-sale securities classified as short-term investments	$2,587,853	$ 27	$ (4,003)	$2,583,877

The available-for-sale securities classified as cash and cash equivalents on the consolidated balance sheets are not included in the tables above as the gross unrealized gains and losses were immaterial for each period and their carrying value approximates fair value because of the short maturity period of these instruments.

The contractual maturities of securities classified as available-for-sale as of December 31, 2016 were as follows (in thousands):

	December 31, 2016	
Due within one year	$	1,990,083
Due after one year through two years		795,898
Total	$	2,785,981

The gross unrealized loss on securities in a continuous loss position for 12 months or longer was not material as of December 31, 2016 and there were no securities in a continuous loss position for 12 months or longer as of December 31, 2015.

Investments are reviewed periodically to identify possible other-than-temporary impairments. No impairment loss has been recorded on the securities included in the tables above as the Company believes that the decrease in fair value of these securities is temporary and expects to recover at least up to the initial cost of investment for these securities.

Note 4. Fair Value Measurements

The Company measures its cash equivalents, short-term investments and derivative financial instruments at fair value. The Company classifies its cash equivalents, short-term investments and derivative financial instruments within Level 1 or Level 2 because the Company values these investments using quoted market prices or alternative pricing sources and models utilizing market observable inputs. The fair value of the Company’s Level 1 financial assets is based on quoted market prices of the identical underlying security. The fair value of the Company’s Level 2 financial assets is based on inputs that are directly or indirectly observable in the market, including the readily-available pricing sources for the identical underlying security that may not be actively traded.

The following tables set forth the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2016 and 2015 based on the three-tier fair value hierarchy (in thousands):

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents:				
Money market funds	$422,515	$—	$ —	$422,515
Treasury bills	12,639	—	—	12,639
Corporate notes	—	7,387	—	7,387
Commercial paper	—	292,249	—	292,249
Short-term investments:				
U.S. government securities	—	657,502	—	657,502
Agency securities	—	526,266	—	526,266
Corporate notes	—	689,986	—	689,986
Commercial paper	—	311,238	—	311,238
Certificates of deposit	—	600,989	—	600,989
Other current assets:				
Foreign currency contracts	—	1,955	—	1,955
Total	$435,154	$3,087,572	$ —	$3,522,726
Liabilities				
Other current liabilities:				
Foreign currency contracts	—	500	—	500
Total	$—	$500	$ —	$500

	December 31, 2015			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents:				
Money market funds	$141,700	$—	$ —	$141,700
Commercial paper	—	419,110	—	419,110
Certificates of deposit	—	50,298	—	50,298
Short-term investments:				
Treasury bills	29,953	—	—	29,953
U.S. government securities	—	537,168	—	537,168
Agency securities	—	589,297	—	589,297
Corporate notes	—	693,593	—	693,593
Commercial paper	—	229,965	—	229,965
Certificates of deposit	—	503,901	—	503,901
Other current assets:				
Foreign currency contracts	—	6,804	—	6,804
Total	$171,653	$3,030,136	$ —	$3,201,789
Liabilities				

Other current liabilities:				
Foreign currency contracts	—	3,005	—	3,005
Total	$—	$3,005	$ —	$3,005

In 2014, the Company issued $935.0 million principal amount of 0.25% convertible senior notes due in 2019 (the "2019 Notes") and $954.0 million principal amount of 1.00% convertible senior notes due in 2021 (the "2021 Notes" and together with the 2019 Notes, the "Notes") in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. Refer to Note 9 – Convertible Senior Notes for further details on the Notes. The estimated fair value of the 2019 Notes and 2021 Notes based on a market approach as of December 31, 2016 was approximately $879.0 million and $880.4 million respectively, which represents a Level 2 valuation. The estimated fair value was determined based on the estimated or actual bids and offers of the Notes in an over-the-counter market on the last business day of the period.

Derivative Financial Instruments

The Company enters into foreign currency forward contracts with financial institutions to reduce the risk that its earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the functional currency of a subsidiary. These contracts do not subject the Company to material balance sheet risk due to exchange rate movements because gains and losses on these derivatives are intended to offset gains and losses on the hedged foreign currency denominated assets and liabilities. These foreign currency forward contracts are not designated as hedging instruments.

The Company recognizes these derivative instruments as either assets or liabilities in the consolidated balance sheets at fair value based on a Level 2 valuation. The Company records changes in the fair value (i.e., gains or losses) of the derivatives as other income (expense), net in the consolidated statements of operations. The notional principal of foreign currency contracts outstanding was equivalent to $536.9 million and $522.4 million at December 31, 2016 and 2015, respectively.

The fair values of outstanding derivative instruments for the periods presented on a gross basis are as follows (in thousands):

	Balance Sheet Location	December 31, 2016	December 31, 2015
Assets			
Foreign currency contracts not designated as hedging instruments	Other current assets	$ 1,955	6,804
Liabilities			
Foreign currency contracts not designated as hedging instruments	Other current liabilities	500	3,005
Total fair value of derivative instruments		$ 1,455	$ 3,799

The Company recognized $1.6 million and $0.4 million net gains on the foreign currency contracts in the year ended December 31, 2016 and 2015, respectively. The Company did not have any derivative financial instruments in the year ended December 31, 2014.

Note 5. Property and Equipment, Net

The following table presents the detail of property and equipment, net for the periods presented (in thousands):

	December 31, 2016	December 31, 2015
Property and equipment, net		
Equipment	$909,797	$720,421
Furniture and leasehold improvements	304,613	297,274
Capitalized software	353,163	211,241
Construction in progress	74,255	85,073
Total	1,641,828	1,314,009
Less: Accumulated depreciation and amortization	(857,927)	(578,710)
Property and equipment, net	$783,901	$735,299

The gross carrying amount of property and equipment includes $361.1 million and $370.3 million of server and networking equipment acquired under capital leases as of December 31, 2016 and 2015, respectively. The accumulated depreciation of the equipment under capital leases totaled $207.0 million and $226.9 million as of December 31, 2016 and 2015, respectively.

Depreciation expense totaled $332.8 million, $257.2 million and $171.6 million for the years ended December 31, 2016, 2015 and 2014, respectively. Included in these amounts were depreciation expense for server and networking equipment acquired under capital leases in the amount of $100.8 million, $118.7 million and $108.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Note 6. Goodwill and Intangible Assets

The following table presents the goodwill activities for the periods presented (in thousands):

	Goodwill
Balance as of December 31, 2014	$622,570
TellApart acquisition	394,989
Other acquisitions	106,198
Foreign currency translation adjustment	(1,029)
Balance as of December 31, 2015	$1,122,728
Acquisitions	74,186
Foreign currency translation adjustment	(11,599)
Balance as of December 31, 2016	$1,185,315

For each of the periods presented, gross goodwill balance equaled the net balance since no impairment charges have been recorded. Refer to Note 8—Acquisitions for further details about goodwill.

The following table presents the detail of intangible assets for the periods presented (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
December 31, 2016:			
Patents and developed technologies	$122,611	$ (47,160)	$75,451
Publisher and advertiser relationships	53,100	(33,217)	19,883
Total	$175,711	$ (80,377)	$95,334
December 31, 2015:			
Patents and developed technologies	$132,444	$ (43,991)	$88,453
Publisher and advertiser relationships	75,300	(23,803)	51,497
Assembled workforce	1,960	(1,714)	246

Other intangible assets	2,100	(1,281)	819
Total	$211,804	$ (70,789)	$141,015

Patents and developed technologies are amortized over a period of up to eleven years from the respective purchase dates. Publisher and advertiser relationships are amortized over a period ranging from two to five years, and assembled workforce and other intangible assets are amortized over a period of one to four years. Amortization expense associated with intangible assets for the years ended December 31, 2016, 2015 and 2014 was $69.3 million, $54.7 million and $36.6 million, respectively. During the year ended December 31, 2016, $59.5 million in gross carrying value and accumulated amortization related to fully amortized intangible assets was eliminated.

Estimated future amortization expense as of December 31, 2016 is as follows (in thousands):

Years ending December 31,	
2017	$43,810
2018	18,855
2019	8,796
2020	6,523
2021	6,126
Thereafter	11,224
Total	$95,334

Note 7. Accrued and other current liabilities

The following table presents the detail of accrued and other current liabilities for the periods presented (in thousands):

	December 31, 2016	December 31, 2015
Accrued compensation	$82,354	$90,906
Accrued restructuring	55,942	396
Accrued publisher, content and ad network costs	44,362	23,486
Deferred revenue	33,659	23,674
Accrued tax liabilities	29,558	25,880
Accrued sales and marketing expenses	22,431	27,948
Accrued other	112,631	91,502
Total	$380,937	$283,792

Note 8. Acquisitions and Other Investments

2016 Acquisitions

During the year ended December 31, 2016, the Company acquired several companies, each of which was accounted for as a business combination. The total purchase price of $91.4 million (paid in shares of the Company’s common stock having a total fair value of $1.3 million and cash of $90.1 million) for these acquisitions was allocated as follows: $14.4 million to developed technologies, $5.0 million to cash acquired, $0.2 million to net tangible assets acquired based on their estimated fair value on the acquisition date, $2.4 million to deferred tax liability, and the excess $74.2 million of the purchase price over the fair value of net assets acquired to goodwill. The goodwill from the acquisitions are mainly attributable to assembled workforce, expected synergies and other benefits. Tax deductible goodwill resulting from certain of these acquisitions was $63.8 million. The remaining goodwill is not tax deductible

for U.S. income tax purposes. Developed technologies will be amortized on a straight-line basis over their estimated useful lives of up to 24 months.

The results of operations for each of these acquisitions have been included in the Company's consolidated statements of operations since the date of acquisition. Actual and pro forma revenue and results of operations for these acquisitions have not been presented because they do not have a material impact on the consolidated revenue and results of operations, either individually or in the aggregate.

2015 Acquisitions

In May 2015, the Company completed its acquisition of TellApart, Inc. ("TellApart"), a privately held marketing technology company with unique retargeting capabilities headquartered in Burlingame, California. The acquisition was expected to bring the power of retargeting to the Company to help advertisers reach their users. Under the terms of the acquisition, the Company agreed to pay $22.6 million in cash and issue approximately 12.2 million shares of its common stock in consideration for all of the issued and outstanding shares of capital stock of TellApart. In addition, the Company agreed to issue an aggregate of 1.2 million shares of the Company's common stock and 1.3 million stock options as a result of assumed TellApart equity awards held by individuals, who will continue to provide services to the Company.

The fair value of the total consideration of $479.1 million (paid in shares of the Company's common stock having a total fair value of $456.5 million and cash of $22.6 million) for the acquisition of TellApart was allocated to the acquired tangible and intangible assets and assumed liabilities based on their estimated fair values at closing as follows: $21.4 million to developed technology, $43.3 million to advertiser relationships, $2.1 million to trade name, $29.6 million to cash acquired, $19.7 million to account receivables acquired, $2.2 million to other tangible assets acquired, $11.8 million to liabilities assumed, $22.4 million to deferred tax liability recorded, and the excess $395.0 million of the purchase price over the fair value of net assets acquired was recorded as goodwill. This goodwill is primarily attributable to the expected synergies from potential monetization opportunities and from integrating the retargeting technologies into the Company's mobile platforms, and the value of acquired talent. Goodwill is not deductible for U.S. income tax purposes. Developed technology, advertiser relationships and trade names were amortized over their estimated useful lives of 12 to 72 months. The discounted cash flow method, which calculates the fair value of an asset based on the value of cash flows that the asset is expected to generate in the future, was used to estimate the fair value of the amortizable intangible assets acquired.

During the year ended December 31, 2015, the Company acquired other companies, which were accounted for as business combinations. The total purchase price of $118.9 million (paid in shares of the Company's common stock having a total fair value of $60.1 million and cash of $58.8 million) for these acquisitions was allocated as follows: $12.9 million to developed technologies, $3.2 million to net tangible assets acquired based on their estimated fair value on the acquisition date, $3.4 million to deferred tax liability, and the excess $106.2 million of the purchase price over the fair value of net assets acquired to goodwill. Tax deductible goodwill resulting from certain of these acquisitions was $4.1 million. The remaining goodwill is not tax deductible for U.S. income tax purposes. Developed technologies will be amortized on a straight-line basis over their estimated useful lives of 12 to 60 months.

In connection with all of the acquisitions completed during the year ended December 31, 2015, the Company also agreed to pay cash and issue shares of its common stock with a total fair value up to $102.9 million, which is to be paid to certain employees of the acquired entities contingent upon their continued employment with the Company. The Company will recognize compensation expense related to the equity consideration over the requisite service periods of up to 48 months from the respective acquisition dates on a straight-line basis. In addition, the Company will recognize approximately $37.2 million of stock-based compensation expense in relation to assumed stock options over the remaining requisite service periods of up to 45 months from the respective acquisition dates on a straight-line basis, excluding the fair value of the assumed stock options that was allocated and recorded as part of the purchase price for the portion of the service period completed prior to the closing of the applicable acquisition.

The results of operations for each of these acquisitions have been included in the Company's consolidated statements of operations since the date of acquisition. Actual and pro forma revenue and results of operations for these acquisitions have not been presented because they do not have a material impact to the consolidated revenue and results of operations, either individually or in aggregate.

2014 Acquisitions

In May 2014, the Company completed its acquisition of privately held Gnip, Inc. ("Gnip"), a leading provider of social data and analytics headquartered in Boulder, Colorado. The acquisition was made to allow the Company to further enhance its data analytics capabilities. Under the terms of the acquisition, the Company agreed to pay $107.3 million in cash and issue a total of 0.6 million shares of its common stock, including shares of restricted stock subject to continued employment, in consideration for all of the issued and outstanding shares of capital stock of Gnip. In addition, the Company agreed to issue up to 0.4 million shares of the Company's common stock as a result of assumed Gnip equity awards held by individuals, who will continue to provide services to the Company. The fair value of the

total consideration of $134.1 million, including the earned portion of assumed stock options and other equity awards, was allocated to the acquired tangible and intangible assets and assumed liabilities based on their estimated fair values at closing as follows: $23.2 million to developed technology, $9.3 million to customer relationships, $9.1 million to tangible assets acquired, $5.8 million to liabilities assumed, $6.4 million to deferred tax liability recorded, and the excess $104.7 million of the purchase price over the fair value of net assets acquired was recorded as goodwill. This goodwill is primarily attributable to the potential expansion and future development of the Company’s data products, expected synergies arising from the acquisition and the value of acquired talent. Goodwill is not deductible for U.S. income tax purposes. Both developed technology and customer relationships were amortized on a straight-line basis over their estimated useful life of 60 months. The discounted cash flow method, which calculates the fair value of an asset based on the value of cash flows that the asset is expected to generate in the future, was used to estimate the fair value of these intangible assets acquired.

During the year ended December 31, 2014, the Company acquired other companies, which were accounted for as business combinations. The total purchase price of $188.1 million (paid in shares of the Company's common stock having a total fair value of $121.2 million and cash of $66.9 million) for these acquisitions was preliminarily allocated as follows: $28.1 million to developed technologies, $1.6 million to customer relationships, $6.5 million to net tangible assets acquired based on their estimated fair value on the acquisition date, $3.2 million to deferred tax liability, and the excess $155.1 million of the purchase price over the fair value of net assets acquired to goodwill. Tax deductible goodwill resulting from certain of these acquisitions was $21.9 million as of December 31, 2014, the remaining amounts are not tax deductible for U.S. income tax purposes. Developed technologies and customer relationships will be amortized on a straight-line basis over their estimated useful lives of 12 to 48 months.

In connection with all of the acquisitions completed during the year ended December 31, 2014, the Company also agreed to pay cash and shares of the Company's common stock with a total fair value up to $97.7 million, which is to be paid to certain employees of the acquired entities contingent upon their continued employment with the Company. In addition, the fair value of assumed stock options determined to be part of post-acquisition stock-based compensation amounted to approximately $16.9 million. The Company recognizes compensation expense in relation to these cash and equity consideration and assumed stock options over the remaining requisite service periods of up to 48 months from the respective acquisition dates on a straight-line basis.

The results of operations for each of these acquisitions have been included in the Company's consolidated statements of operations since the date of acquisition. Actual and pro forma revenue and results of operations for these acquisitions have not been presented because they do not have a material impact to the consolidated revenue and results of operations, either individually or in aggregate.

Investments in Privately-Held Companies

The Company has determined, as of December 31, 2016, there were no variable interest entities required to be consolidated in the Company's Consolidated Financial Statements. The Company's investments in privately-held companies are primarily accounted for using the cost method which had a carrying value of $90.2 million and $14.2 million as of December 31, 2016 and 2015, respectively. The maximum loss the Company can incur for its investments is their carrying value. These investments in privately-held companies are included within Other Assets on the consolidated balance sheets.

Note 9. Convertible Notes

In September 2014, the Company issued $900.0 million principal amount of 2019 Notes and $900.0 million principal amount of 2021 Notes in a private placement to qualified institutional buyers pursuant to Rule144A under the Securities Act of 1933, as amended. In October 2014, pursuant to the exercise of the overallotment option by the initial purchasers, the Company issued an additional $35.0 million principal amount of 2019 Notes and $54.0 million principal amount of 2021 Notes. The total net proceeds from this offering were approximately $1.86 billion, after deducting $28.3 million of initial purchasers' discount and $0.5 million debt issuance costs in connection with the 2019 Notes and the 2021 Notes.

The interest rates are fixed at 0.25% and 1.00% per annum and are payable semi-annually in arrears on March 15 and September 15 of each year, commencing on March 15, 2015. During the years ended December 31, 2016, 2015 and 2014, the Company recognized $4.9 million, $5.1 million and $1.4 million, respectively, of interest expense related to

the amortization of initial purchasers' discount and debt issuance costs. The Company recognized $11.9 million of coupon interest expense in each of the years ended December 31, 2016 and 2015, and $3.3 million in the year ended December 31, 2014.

Each $1,000 of principal of these Notes will initially be convertible into 12.8793 shares of the Company's common stock, which is equivalent to an initial conversion price of approximately $77.64 per share, subject to adjustment upon the occurrence of specified events. Holders of these notes may convert their notes at their option at any time until close of business on the second scheduled trading day immediately preceding the relevant maturity date which is March 15, 2019 for the 2019 Notes and March 15, 2021 for the 2021 Notes. Further, holders of each of these notes may convert their notes at their option prior to the respective dates above, only under the following circumstances:

1) during any calendar quarter commencing after the calendar quarter ending on December 31, 2014 (and only during such calendar quarters), if the last reported sale price of Twitter's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the relevant series of notes on each applicable trading day;
2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price (as defined in the related Indenture) per $1,000 principal amount of 2019 notes or 2021 notes, as applicable, for each trading day of the measurement period was less than 98% of the product of the last reported sale price of Twitter's common stock and the conversion rate for the notes of the relevant series on each such trading day; or
3) upon the occurrence of certain specified corporate events.

Upon conversion of the 2019 Notes and 2021 Notes, the Company will pay or deliver, as the case may be, cash, shares of its common stock or a combination of cash and shares of its common stock, at the Company's election. If the Company satisfies its conversion obligation solely in cash or through payment and delivery, as the case may be, of a combination of cash and shares of its common stock, the amount of cash and shares of common stock, if any, due upon conversion will be based on a daily conversion value (as described herein) calculated on a proportionate basis for each trading day in a 30 trading day observation period.

If a fundamental change (as defined in the relevant indenture governing the applicable series of Notes) occurs prior to the maturity date, holders of the 2019 Notes and 2021 Notes may require the Company to repurchase all or a portion of their notes for cash at a repurchase price equal to 100% of the principal amount of the notes, plus any accrued and unpaid interest to, but excluding, the repurchase date. In addition, if specific corporate events occur prior to the applicable maturity date, the Company will be required to increase the conversion rate for holders who elect to convert their notes in certain circumstances.

In accordance with accounting guidance on embedded conversion features, the Company valued and bifurcated the conversion option associated with the 2019 Notes and 2021 Notes from the respective host debt instrument, which is referred to as debt discount, and initially recorded the conversion option of $222.8 million for the 2019 Notes and $283.3 million for the 2021 Notes in stockholders' equity. The resulting debt discounts on the 2019 Notes and 2021 Notes are being amortized to interest expense at an effective interest rate of 5.75% and 6.25%, respectively, over the contractual terms of the notes. The Company allocated $0.1 million of debt issuance costs to the equity component, and the remaining debt issuance costs of $0.4 million are being amortized to interest expense.

During the years ended December 31, 2016, 2015 and 2014, the Company recognized $79.0 million, $74.2 million and $18.8 million, respectively, of interest expense related to the amortization of the debt discount prior to capitalization of interest. As of December 31, 2016, the net carrying value, net of the initial purchasers' discount and debt discount, of 2019 Notes and 2021 Notes was $798.6 million and $740.3 million, respectively.

The Notes consisted of the following (in thousands):

	December 31, 2016		December 31, 2015	
	2019 Notes	2021 Notes	2019 Notes	2021 Notes
Principal amounts:				
Principal	$935,000	$954,000	$935,000	$954,000
Unamortized initial purchasers' discount and debt discount [1]	(136,376)	(213,657)	(181,994)	(251,911)
Net carrying amount	$798,624	$740,343	$753,006	$702,089
Carrying amount of the equity component [2]	$222,826	$283,283	$222,826	$283,283

(1) Included in the consolidated balance sheets within convertible notes and amortized over the remaining lives of the Notes.
(2) Included in the consolidated balance sheets within additional paid-in capital.

As of December 31, 2016, the remaining life of the 2019 Notes and 2021 Notes is approximately 32 months and 56 months, respectively.

Concurrently with the offering of these Notes in September and October 2014, the Company entered into convertible note hedge transactions with certain bank counterparties whereby the Company has the option to purchase initially (subject to adjustment for certain specified events) a total of approximately 24.3 million shares of its common stock at a price of approximately $77.64 per share. The total cost of the convertible note hedge transactions was $407.2 million. In addition, the Company sold warrants to certain bank counterparties whereby the holders of the warrants have the option to purchase initially (subject to adjustment for certain specified events) a total of approximately 24.3 million shares of the Company's common stock at a price of $105.28. The Company received $289.3 million in cash proceeds from the sale of these warrants.

Taken together, the purchase of the convertible note hedges and the sale of warrants are intended to offset any actual dilution from the conversion of these notes and to effectively increase the overall conversion price from $77.64 to $105.28 per share. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital in 2014.

Note 10. Net Loss per Share

The Company computes net loss per share of common stock in conformity with the two-class method required for participating securities. The Company considers the shares issued upon the early exercise of stock options subject to repurchase to be participating securities, because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. The holders of early exercised shares subject to repurchase do not have a contractual obligation to share in the losses of the Company. As such, the Company's net losses for the years ended December 31, 2016, 2015 and 2014 were not allocated to these participating securities.

Basic net loss per share is computed by dividing total net loss attributable to common stockholders by the weighted-average common shares outstanding. The weighted-average common shares outstanding is adjusted for shares subject to repurchase such as unvested restricted stock granted to employees in connection with acquisitions, contingently returnable shares and escrowed shares supporting indemnification obligations that are issued in connection with acquisitions and unvested stock options exercised. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding including potential dilutive common stock instruments. In the years ended December 31, 2016, 2015 and 2014, the Company's potential common stock instruments such as stock options, RSUs, shares to be purchased under the 2013 Employee Stock Purchase Plan, shares subject to repurchases, conversion feature of the Notes and the warrants were not included in the computation of diluted loss per share as the effect of including these shares in the calculation would have been anti-dilutive.

The following table presents the calculation of basic and diluted net loss per share for periods presented (in thousands, except per share data).

	Year Ended December 31,		
	2016	2015	2014
Net loss	$(456,873)	$(521,031)	$(577,820)
Basic shares:			
Weighted-average common shares outstanding	708,010	670,132	613,944
Weighted-average restricted stock subject to repurchase	(5,875)	(7,708)	(8,954)
Weighted-average shares used to compute basic net loss per share	702,135	662,424	604,990
Diluted shares:			
Weighted-average shares used to compute diluted net loss per share	702,135	662,424	604,990
Net loss per share attributable to common stockholders:			
Basic	$(0.65)	$(0.79)	$(0.96)
Diluted	$(0.65)	$(0.79)	$(0.96)

The following number of potential common shares at the end of each period were excluded from the calculation of diluted net loss per share attributable to common stockholders because their effect would have been anti-dilutive for the periods presented (in thousands):

	Year Ended December 31,		
	2016	2015	2014
RSUs	48,069	43,170	64,135
Warrants	24,329	24,329	24,329
Stock options	8,723	11,177	20,420
Shares subject to repurchase and others	6,637	9,146	9,335

Since the Company expects to settle the principal amount of the outstanding Notes in cash, the Company uses the treasury stock method for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread of 24.3 million shares will have a dilutive impact on diluted net income per share of common stock when the average market price of the Company’s common stock for a given period exceeds the conversion price of $77.64 per share for the Notes.

If the average market price of the common stock exceeds the exercise price of the warrants, $105.28, the warrants will have a dilutive effect on the earnings per share assuming that the Company is profitable. Since the average market price of the common stock is below $105.28, the warrants are anti-dilutive.

Note 11. Preferred Stock

Prior to the initial public offering, the Company had outstanding shares of Class A junior preferred stock and several series of convertible preferred stock. Each share of preferred stock was convertible to one share of common stock. Upon the closing of the Company's initial public offering on November 13, 2013, all shares of outstanding redeemable convertible preferred stock and outstanding convertible preferred stock were automatically converted to shares of the Company's common stock.

The Company has the authority to issue up to 200,000,000 shares of preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without any further vote or action by the stockholders. As of December 31, 2016 and 2015, there was no preferred stock outstanding.

Note 12. Common Stock and Stockholders' Equity

Common Stock

As of December 31, 2016, the Company is authorized to issue 5.0 billion shares of $0.000005 par value common stock in accordance with the Certificate of Incorporation, as amended and restated.

Each share of common stock is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when and if declared by the Board of Directors, subject to the prior rights of holders of all classes of stock outstanding. As of December 31, 2016, no dividends have been declared.

Restricted Common Stock

The Company has granted restricted common stock to certain continuing employees in connection with the acquisitions. Vesting of this stock is dependent on the respective employee's continued employment at the Company during the requisite service period, which is up to four years from the issuance date, and the Company has the right to repurchase the unvested shares upon termination of employment. The fair value of the restricted common stock issued to employees is recorded as compensation expense on a straight-line basis over the requisite service period.

The activities for the restricted common stock issued to employees for the year ended December 31, 2016 are summarized as follows (in thousands, except per share data):

	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested restricted common stock at December 31, 2015	4,540	$ 33.88
Granted	3,320	$ 16.63
Vested	(2,371)	$ 32.94
Canceled	(392)	$ 34.46
Unvested restricted common stock at December 31, 2016	5,097	$ 23.04

Equity Incentive Plans

The Company's 2013 Equity Incentive Plan became effective upon the completion of the Company's initial public offering and serves as the successor to the 2007 Equity Incentive Plan. Initially, 68.3 million shares were reserved under the 2013 Equity Incentive Plan and any shares subject to options or other similar awards granted under the 2007 Equity Incentive Plan that expire, are forfeited, are repurchased by the Company or otherwise terminate unexercised will become available under the 2013 Equity Incentive Plan. The number of shares of the Company's common stock available for issuance under the 2013 Equity Incentive Plan were and will be increased on the first day of each fiscal year beginning with the 2014 fiscal year, in an amount equal to the least of (i) 60,000,000 Shares, (ii) 5% of the outstanding Shares on the last day of the immediately preceding fiscal year or (iii) such number of Shares determined by the Company's Board of Directors. As of December 31, 2016, the total number of options and RSUs outstanding under the 2013 Equity Incentive Plan was 46.3 million shares, and 123.0 million shares were available for future issuance. There were 9.1 million shares of options and RSUs outstanding under the 2007 Equity Incentive Plan as of December 31, 2016. No additional shares have been issued under the 2007 Equity Incentive Plan since 2013. Options

granted under the Company's Equity Incentive Plans generally expire 10 years after the grant date. The Company issues new shares to satisfy stock option exercises.

On May 25, 2016, the Company's stockholders approved the 2016 Equity Incentive Plan. A total of 6,814,085 shares were reserved under the 2016 Equity Incentive Plan, which equals the number of shares that the Jack Dorsey Revocable Trust dated December 8, 2010 (the "Jack Dorsey Trust"), for which Jack Dorsey, the Company's Chief Executive Officer, serves as trustee, gave back and contributed to the Company without any cost or charge to the Company. All such shares have been retired and cancelled by the Company. A maximum aggregate number of 6,814,085 shares were reserved under the 2016 Equity Incentive Plan and are available for grants.

The Company also assumed stock options of acquired entities in connection with certain acquisitions. While the respective stock plans were terminated on the closing of each acquisition, they continue to govern the terms of stock options assumed in the respective acquisition.

Employee Stock Purchase Plan

On November 7, 2013, the Company's 2013 Employee Stock Purchase Plan (the "ESPP") became effective. The ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to 15% of their eligible compensation, subject to any plan limitations. The ESPP provides for twelve-month offering periods, and each offering period will include purchase periods, which will be the approximately six-month period commencing with one exercise date and ending with the next exercise date. Employees are able to purchase shares at 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the exercise date. The number of shares available for sale under the 2013 Employee Stock Purchase Plan were and will be increased annually on the first day of each fiscal year, equal to the least of i) 11.3 million shares; ii) 1% of the outstanding shares of the Company's common stock as of the last day of the immediately preceding fiscal year; or iii) such other amount as determined by the Board of Directors.

During the years ended December 31, 2016 and 2015, employees purchased an aggregate of 2.0 million and 1.5 million shares, respectively, under this plan at a weighted average price of $11.98 and $25.78 per share, respectively.

Stock Option Activity

A summary of stock option activity for the year ended December 31, 2016 is as follows (in thousands, except years and per share data):

	Options Outstanding			
	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2015	11,177	$ 6.55	5.86	$ 199,576
Options granted and assumed in connection with acquisitions	557	$ 3.23		
Options exercised	(2,864)	$ 2.56		
Options canceled	(147)	$ 3.50		
Outstanding at December 31, 2016	8,723	$ 7.71	4.25	$ 98,240
Vested and expected to vest at December 31, 2016 [1]	8,147	$ 6.97	3.94	$ 94,712
Exercisable at December 31, 2016	6,962	$ 5.37	3.24	$ 85,916

[1] The expected to vest options are the result of applying pre-vesting forfeiture rate assumptions to unvested options outstanding.

The aggregate intrinsic value in the table above represents the difference between the fair value of common stock and the exercise price of outstanding, in-the-money stock options.

The total intrinsic values of stock options exercised in the years ended December 31, 2016, 2015 and 2014 were $41.4 million, $337.2 million and $872.8 million, respectively.

Performance Restricted Stock Units ("PRSUs") Activity

In 2016, the Company granted PRSUs to certain of its executive officers and established the 2016 annual performance goals for these PRSUs. The PRSUs will vest based on the Company's attainment of the annual financial performance goals and the executives' continued employment through the vesting date, approximately one year. The number of shares that ultimately vest for 2016 was estimated to be 70 percent of the annual target amount, based on the Company's performance, subject to the Compensation Committee of the Board of Director's approval. During the year ended December 31, 2016, the Company granted 165,833 PRSUs, at the 100% target level, for the 2016 performance goals with a weighted grant date fair value of $17.90 per share. In addition, there are 1,687,833 additional PRSUs that will vest based on performance goals in 2017 to 2019, if achieved at target levels. Since the performance targets for those additional PRSUs have not been established, they are not considered granted nor are presented as outstanding.

RSU Activity

The following table summarizes the activity related to the Company's RSUs for the year ended December 31, 2016. For purposes of this table, vested RSUs represent the shares for which the service condition had been fulfilled as of each respective date (in thousands, except per share data):

	RSUs Outstanding	
	Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested and outstanding at December 31, 2015	43,170	$ 32.46
Granted	51,231	$ 16.15
Vested	(26,918)	$ 23.70
Canceled	(19,414)	$ 25.88
Unvested and outstanding at December 31, 2016	48,069	$ 22.64

The total fair value of RSUs vested during the years ended December 31, 2016 and December 31, 2015 was approximately $466.4 million and $849.8 million, respectively.

Stock-Based Compensation Expense

Stock-based compensation expense is allocated based on the cost center to which the award holder belongs. Total stock-based compensation expense by function for the years ended December 31, 2016, 2015 and 2014 is as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014

Cost of revenue	$29,502	$40,705	$50,536
Research and development	335,498	401,537	360,726
Sales and marketing	160,935	156,904	157,263
General and administrative	89,298	82,972	63,072
Total stock-based compensation expense	$615,233	$682,118	$631,597

During 2014, the Company modified the terms of stock options and RSUs for certain employees upon their termination or change in employment status. The Company recorded incremental stock-based compensation in relation to the modification of stock-based awards of approximately $32.6 million in the year ended December 31, 2014. The amount of incremental stock-based compensation recorded in relation to the modification of stock-based awards was not material for the years ended December 31, 2016 and 2015.

Income tax benefits recognized for stock-based compensation arrangements during the years ended December 31, 2016, 2015 and 2014 were not material.

The Company capitalized $73.9 million, $50.3 million and $40.8 million of stock-based compensation expense associated with the cost for developing software for internal use in the years ended December 31, 2016, 2015 and 2014, respectively.

As of December 31, 2016, there was $844.0 million of unamortized stock-based compensation expense related to unvested awards which is expected to be recognized over a weighted-average period of 2.18 years.

Note 13. Income Taxes

The domestic and foreign components of pre-tax loss for the years ended December 31, 2016, 2015 and 2014 are as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Domestic	$(237,325)	$(201,628)	$(164,854)
Foreign	(203,509)	(331,677)	(413,497)
Loss before income taxes	$(440,834)	$(533,305)	$(578,351)

The components of the provision (benefit) for income taxes for the years ended December 31, 2016, 2015 and 2014 are as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Current:			
Federal	$1,087	$—	$—
State	(143)	1,226	720
Foreign	19,870	14,625	8,358
Total current provision for income taxes	20,814	15,851	9,078
Deferred:			
Federal	293	(23,208)	(8,972)
State	17	(852)	(128)
Foreign	(5,085)	(4,065)	(509)
Total deferred benefit for income taxes	(4,775)	(28,125)	(9,609)
Provision (benefit) for income taxes	$16,039	$(12,274)	$(531)

The following is a reconciliation of the statutory federal income tax rate to the Company's effective tax rate for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
	2016	2015	2014
Tax at federal statutory rate	35.0 %	35.0 %	35.0 %
State taxes, net of federal benefit	0.0	(0.1)	(0.1)
Stock-based compensation	(2.3)	(2.9)	(4.2)
Research and development credits	6.6	7.2	25.2
Valuation Allowance	(7.0)	3.1	(9.4)
Nondeductible expenses	(7.0)	(5.6)	(4.5)
Foreign rate differential	(19.5)	(23.7)	(26.4)
Change in tax positions	(9.5)	(10.7)	(15.9)
Other	0.1	0.0	0.4
Effective tax rate	(3.6)%	2.3 %	0.1 %

The tax effects of temporary differences and related deferred tax assets and liabilities as of December 31, 2016 and 2015 are as follows (in thousands):

	December 31,	
	2016	2015
Deferred tax assets:		
Net operating loss carryforwards	$235,668	$242,987
Accruals and reserves	61,594	36,133
Stock-based compensation expense	64,136	80,106
Research and development credits	251,808	209,425
California Enterprise Zone Credit	12,266	11,710
Fixed assets and intangible assets	2,631	1,457
Other	11,980	7,059
Total deferred tax assets	640,083	588,877
Valuation allowance	(439,993)	(378,448)
Total deferred tax assets, net of valuation allowance	200,090	210,429
Deferred tax liabilities:		
Fixed assets and intangible assets	(168,223)	(174,007)
Convertible notes	(24,303)	(30,002)
Other	(1,612)	(1,577)
Total deferred tax liabilities	(194,138)	(205,586)
Net deferred tax assets	$5,952	$4,843

Based on the available objective evidence, management believes it is more-likely-than-not that the net U.S. and Brazil deferred tax assets were not fully realizable as of the year ended December 31, 2016. Accordingly, the Company has established a full valuation allowance against its U.S. and Brazil deferred tax assets. As of December 31, 2016, the Company has net $6.6 million of deferred tax assets in foreign jurisdictions which it believes are more-likely-than-not to be fully realized given the expectation of future earnings in these jurisdictions.

For the year ended December 31, 2016, the Company has not provided for income taxes on $157.1 million of its undistributed earnings for certain foreign subsidiaries because these earnings are intended to be indefinitely reinvested in operations outside the U.S. Determining the unrecognized deferred tax liabilities associated with these earnings is not practicable.

At December 31, 2016, the Company had $3.47 billion of federal and $1.41 billion of state net operating loss carryforwards available to reduce future taxable income, which will begin to expire in 2027 for federal and 2017 for state tax purposes.

Pursuant to authoritative guidance, effective through December 31, 2016, the excess benefit from stock-based compensation was recorded to stockholders’ equity when cash taxes payable were reduced. As of December 31, 2016, the portion of net operating loss carryforwards related to the excess tax benefit from stock-based compensation was approximately $3.42 billion. The income tax benefits resulting from stock awards that were credited to stockholders' equity for the year ended December 31, 2016 were $0.2 million.

The Company also has research credit carryforwards of $222.8 million and $184.5 million for federal and state income tax purposes, respectively. The federal credit carryforward will begin to expire in 2027. The state research tax credits have no expiration date. Additionally, the Company has California Enterprise Zone Credit carryforwards of $18.9 million which will begin to expire in 2023.

Utilization of the net operating loss carryforwards and credits may be subject to an annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended (the “Code”), and similar state provisions. Any annual limitation may result in the expiration of net operating losses and credits before utilization.

As of December 31, 2016, the unrecognized tax benefit was $269.5 million, including $263.7 million of unrecognized tax benefits which, if recognized, will not affect the annual effective tax rate as these unrecognized tax benefits would increase deferred tax assets which would be subject to a full valuation allowance, and the remaining $5.8 million of unrecognized tax benefits which, if recognized, would affect the annual effective tax rate. A reconciliation of the beginning and ending amount of unrecognized tax benefit is as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Balance at the beginning of the year	$209,443	$182,484	$43,061
Additions related to prior year tax positions	3,682	1,820	—
Reductions related to prior year tax positions	—	(45,305)	(50)
Additions related to current year tax positions	56,383	70,444	139,473
Balance at the end of the year	$269,508	$209,443	$182,484

Total unrecognized tax benefits are recorded on the Company's consolidated balance sheets as follows (in thousands):

	December 31,	
	2016	2015
Total unrecognized tax benefits balance	$269,508	$209,443
Amounts netted against related deferred tax assets	(263,696)	(208,307)
Unrecognized tax benefits recorded on consolidated balance sheets	$5,812	$1,136

The net unrecognized tax benefit of $5.8 million and $1.1 million as of December 31, 2016 and 2015, respectively, was included in the deferred and other long-term tax liabilities, net on the Company's consolidated balance sheets. The Company does not believe that its unrecognized tax benefits will significantly change within the next 12 months.

The Company recognizes interest and/or penalties related to income tax matters as a component of income tax expense. As of December 31, 2016 there were no significant accrued interest and penalties related to uncertain tax positions.

On July 27, 2015, the United State Tax Court issued an opinion (Altera Corp. et al. v. Commissioner), which invalidated the 2003 final Treasury rule that requires participants in qualified cost-sharing arrangements to share stock-based compensation costs. As such, the Company filed its 2014 and 2015 federal tax returns based upon the opinion rendered in this case, which resulted in an increase in the 2014 and 2015 net operating losses in the U.S jurisdiction. As the Company maintains a full valuation allowance on its US deferred tax assets, no benefit was realized in the financial statements as a result of this filing position.

The Company is subject to taxation in the United States and various state and foreign jurisdictions. Earnings from non-US activities are subject to local country income tax. The material jurisdictions in which the Company is subject to potential examination by taxing authorities include the United States, California and Ireland. The Company is currently under a Federal income tax examination by the Internal Revenue Service (IRS) for tax years 2011, 2012 and 2013. The Company believes that adequate amounts have been reserved in these jurisdictions. The Company's 2007 to

2016 tax years remain subject to examination by the United States and California, and its 2011 to 2016 tax years remain subject to examination in Ireland. The Company remains subject to possible examination in various other jurisdictions that are not expected to result in material tax adjustments.

Note 14. Commitments and Contingencies

Credit Facility

The Company entered into a revolving credit agreement with certain lenders in 2013, which provided for a $1.0 billion revolving unsecured credit facility maturing on October 22, 2018. Loans under the credit facility bear interest, at the Company's option, at (i) a base rate based on the highest of the prime rate, the federal funds rate plus 0.50% and an adjusted LIBOR rate for a one-month interest period plus 1.00%, in each case plus a margin ranging from 0.00% to 0.75% or (ii) an adjusted LIBOR rate plus a margin ranging from 1.00% to 1.75%. This margin is determined based on the total leverage ratio for the preceding four fiscal quarter period. The Company is obligated to pay other customary fees for a credit facility of this size and type, including an upfront fee and an unused commitment fee. Obligations under the credit facility are guaranteed by one of the Company's wholly-owned subsidiaries. In addition, the credit facility contains restrictions on payments including cash payments of dividends.

The revolving credit agreement was amended in September 2014 to increase the amount of indebtedness that the Company may incur and increase the amount of restricted payments that the Company may make. This amendment to the revolving credit agreement also provides that if the Company's total leverage ratio exceeds 2.5:1.0 and if the amount outstanding under the credit facility exceeds $500.0 million, or 50% of the amount that may be borrowed under the credit facility, the credit facility will become secured by substantially all of the Company's and certain of its subsidiaries' assets, subject to limited exceptions. As of December 31, 2016, no amounts were drawn under the credit facility.

Operating and Capital Leases

The Company has entered into various non-cancelable operating lease agreements for certain offices and data center facilities with contractual lease periods expiring between 2017 and 2028. During the year ended December 31, 2016, the Company entered into several sublease agreements for the office space that the Company not fully utilizing. The Company also has lease arrangements for certain server and networking equipment.

A summary of gross lease commitments and sublease income as of December 31, 2016 is as follows (in thousands):

	Operating Leases	Sublease Income	Capital Leases
Years ending December 31,			
2017	$156,757	$(24,101)	$85,886
2018	148,157	(23,712)	45,984
2019	116,189	(16,577)	21,062
2020	90,664	(9,038)	—
2021	57,937	(8,969)	—
Thereafter	163,315	—	—
	$733,019	$(82,397)	152,932
Less: Amounts representing interest			5,247
Total capital lease obligation			147,685
Less: Short-term portion			80,848
Long-term portion			$66,837

Rent expense, net of sublease income, under the Company's operating leases, including co-location arrangements for the Company's data centers, was $155.7 million, $119.8 million and $73.9 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Non-cancelable Obligations

The Company also had $138.4 million of non-cancelable contractual commitments as of December 31, 2016, primarily related to its infrastructure services, bandwidth and other services arrangements. These commitments are generally due within one to three years.

Legal Proceedings

The Company is currently involved in, and may in the future be involved in, legal proceedings, claims and governmental investigations in the normal course of business. These proceedings, in the form of both individual and class action litigation, have included, but are not limited to matters involving intellectual property, defamation, privacy, securities, employment and contractual rights. Legal fees and other costs associated with such actions are expensed as incurred. The Company assesses, in conjunction with its legal counsel, the need to record a liability for litigation and contingencies. Litigation accruals are recorded when and if it is determined that a loss related matter is both probable and reasonably estimable. Material loss contingencies that are reasonably possible of occurrence, if any, are subject to disclosure. As of December 31, 2016, there was no litigation or contingency with at least a reasonable possibility of a material loss. No material losses have been recorded during the years ended December 31, 2016, 2015 and 2014 with respect to litigation or loss contingencies.

Indemnification

In the ordinary course of business, the Company often includes standard indemnification provisions in its arrangements with its customers, partners, suppliers and vendors. Pursuant to these provisions, the Company may be obligated to indemnify such parties for losses or claims suffered or incurred in connection with its service, breach of representations or covenants, intellectual property infringement or other claims made against such parties. These provisions may limit the time within which an indemnification claim can be made. It is not possible to determine the maximum potential amount under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. The Company has never incurred significant expense defending its licensees against third party claims, nor has it ever incurred significant expense under its standard service warranties or arrangements with its customers, partners, suppliers and vendors. Accordingly, the Company had no liabilities recorded for these provisions as of December 31, 2016 and 2015.

Note 15. Related Party Transactions

In September 2015, the Company entered into a partnership agreement for no consideration with Square, Inc., for which Jack Dorsey (the Company’s Chief Executive Officer) serves as Chief Executive Officer, to enable U.S. political donations through Tweets. Neither Square, Inc. nor the Company will pay each other any amounts in connection with the agreement. The agreement has no impact on the Company’s financial statements.

On October 22, 2015, the Company and the Jack Dorsey Revocable Trust dated December 8, 2010 (the “Jack Dorsey Trust”), for which Jack Dorsey (the Company’s Chief Executive Officer) serves as trustee, entered into a Contribution Agreement that the Jack Dorsey Trust will give back and contribute to Twitter, without any cost or charge, an aggregate of 6,814,085 shares of Twitter’s common stock upon the Company’s stockholders approval of an equity incentive plan. On May 25, 2016, the Company’s stockholders approved the 2016 Equity Incentive Plan with the same number of shares to be granted over time to employees, non-employee directors and consultants. All the shares contributed from the Jack Dorsey Trust have been retired and cancelled by the Company.

Note 16. Employee Benefit Plan

The Company adopted a 401(k) Plan that qualifies as a deferred compensation arrangement under Section 401 of the Code. Under the 401(k) Plan, participating employees may defer a portion of their pretax earnings not to exceed the maximum amount allowable. The Company made discretionary matching contributions to those participating employees who met certain employment criteria. The matching contributions made by the Company to date was not material.

Note 17. Segment Information and Operations by Geographic Area

The Company has a single operating segment and reporting unit structure. The Company’s chief operating decision-maker is the chief executive officer who reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance.

Revenue

Revenue by geography is based on the billing addresses of the customers. The following tables set forth revenue by services and revenue by geographic area (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Revenue by services:			
Advertising services	$2,248,052	$1,994,036	$1,255,688
Data licensing and other	281,567	223,996	147,314
Total revenue	$2,529,619	$2,218,032	$1,403,002

	Year Ended December 31,		
	2016	2015	2014
Revenue by geographic area:			
United States	$1,564,776	$1,443,240	$945,720
International	964,843	774,792	457,282
Total revenue	$2,529,619	$2,218,032	$1,403,002

Japan accounted for $268.5 million, or 11% of total revenue for the year ended December 31, 2016. No individual country from the international markets contributed in excess of 10% of the total revenue for the year ended December 31, 2015. The United Kingdom accounted for $140.3 million or 10% of the total revenue for the years ended December 31, 2014.

Property and Equipment, net

The following table sets forth property and equipment, net by geographic area (in thousands):

	December 31, 2016	December 31, 2015
Property and equipment, net:		
United States	$728,429	$683,176
International	55,472	52,123
Total property and equipment, net	$783,901	$735,299

Note 18. Restructuring Charges

On October 25, 2016, the Board of Directors of the Company approved a reduction in force plan (“2016 Plan”) of up to approximately 9% of the Company’s positions globally. The reduction in force was undertaken to eliminate investment in noncore areas and drive toward greater efficiency, while allowing the Company to continue to invest in

its highest priorities. The Company expects the reduction in force to be completed in 2017.

On December 17, 2016, the Board of Directors of the Company approved a lease abandonment plan ("2016 Lease Plan") to abandon excess office space with lease terms expiring through 2028.

For the year ended December 31, 2015, the Company incurred total restructuring expense of $12.9 million in connection with the reduction in force plan, which was substantially completed in 2015.

The following table summarizes the restructuring charges for the year ended December 31, 2016 and related liabilities as of December 31, 2016 (in thousands):

	2016 Employee Termination Plan	2016 Lease Plan
Charges	$ 21,611	$79,685
Cash payment	(11,629)	(3,562)
Non-cash and other adjustments	(6,357)	(19,577)
Accrued as of December 31, 2016	$ 3,625	$56,546
Cost of revenue	$ 13	$49,006
Research and development	4,246	11,693
Sales and marketing	17,310	13,072
General and administrative	42	5,914
Total costs incurred in 2016	$ 21,611	$79,685
Reflected in consolidated balance sheets: [1]		
Accrued and other current liabilities	$ 3,625	$52,317
Other long-term liabilities	$ —	$4,229

[1] As of December 31, 2016, the Company's restructuring accrual included approximately $56.5 million related to the 2016 Lease Plan. This amount is also included the gross operating lease commitment table under Note 14 – Commitments and Contingencies.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. The design of disclosure controls and procedures and internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2016, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Our management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria established in "Internal Control - Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that assessment, our management has concluded that our internal control over financial reporting was effective as of December 31, 2016. The effectiveness of the Company's internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Item 9B. OTHER INFORMATION

None.

Part III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information called for by this item will be set forth in our Proxy Statement for the Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended December 31, 2016 and is incorporated herein by reference.

Our board of directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The full text of our code of business conduct and ethics is posted on the investor relations page on our website which is located at http://investor.twitterinc.com. We will post any amendments to our code of business conduct and ethics, or waivers of its requirements, on our website.

Item 11. EXECUTIVE COMPENSATION

The information called for by this item will be set forth in our Proxy Statement and is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information, if any, required by this item will be set forth in our Proxy Statement and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference.

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PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this Annual Report on Form 10-K:

1. Consolidated Financial Statements

Our Consolidated Financial Statements are listed in the “Index to Consolidated Financial Statements” under Part II, Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS

FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

	Balance at Beginning of Year	Charged to Expenses	Charged/ Credited to Other Accounts	Balance at End of Year
	(In thousands)			
Allowance for Deferred Tax Assets:				
Year ended December 31, 2016	$378,448	$ 57,529	$ 4,016	$439,993
Year ended December 31, 2015	$351,249	$ 27,175	$ 24	$378,448
Year ended December 31, 2014	$227,878	$ 155,111	$ (31,740)	$351,249

	Balance at Beginning of Year	Additions (Reductions)	Write-off/ Adjustments	Balance at End of Year
	(In thousands)			
Allowance for Doubtful Accounts:				
Year ended December 31, 2016	$8,121	$ 3,958	$ (4,863)	$7,216
Year ended December 31, 2015	$5,507	$ 5,765	$ (3,151)	$8,121
Year ended December 31, 2014	$2,020	$ 4,632	$ (1,145)	$5,507

All other financial statement schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is shown in our Consolidated

Financial Statements or Notes thereto.

3. Exhibits

The documents listed in the Exhibit Index of this Annual Report on Form 10-K are incorporated by reference or are filed with this Annual Report on Form 10-K, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this annual report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 27, 2017.

TWITTER, INC.

By: /s/ Jack Dorsey
Jack Dorsey
Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Jack Dorsey and Anthony Noto, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Jack Dorsey Jack Dorsey	Chief Executive Officer and Director (Principal Executive Officer)	February 27, 2017
/s/ Anthony Noto Anthony Noto	Chief Financial Officer Chief Operating Officer (Principal Financial Officer and Operating Officer)	February 27, 2017
/s/ Robert Kaiden Robert Kaiden	Chief Accounting Officer (Principal Accounting Officer)	February 27, 2017
/s/ Omid Kordestani Omid Kordestani	Executive Chairman and Director	February 27, 2017
/s/ Peter Fenton Peter Fenton	Director	February 27, 2017
/s/ Hugh Johnston Hugh Johnston	Director	February 27, 2017
/s/ Martha Lane Fox Martha Lane Fox	Director	February 27, 2017
/s/ Debra L. Lee Debra L. Lee	Director	February 27, 2017
/s/ David Rosenblatt David Rosenblatt	Director	February 27, 2017
/s/ Marjorie Scardino Marjorie Scardino	Director	February 27, 2017
/s/ Bret Taylor Bret Taylor	Director	February 27, 2017
/s/ Evan Williams Evan Williams	Director	February 27, 2017

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EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date
2.1	Agreement and Plan of Reorganization among Twitter, Inc., Raptor Merger Inc., MoPub Inc. and Fortis Advisors LLC, as Stockholders' Agent, dated as of September 9, 2013.	S-1	333-191552	2.1	October 3, 2013
3.1	Restated Certificate of Incorporation of Twitter, Inc.	S-1/A	333-191552	3.2	October 22, 2013
3.2	Amended and Restated Bylaws of Twitter, Inc.	S-1/A	333-191552	3.4	October 22, 2013
4.1	Form of common stock certificate of Twitter, Inc.	S-1/A	333-191552	4.1	October 22, 2013
4.2	Amended and Restated Investors' Rights Agreement among Twitter, Inc. and certain holders of its capital stock, amended as of October 4, 2013.	S-1/A	333-191552	4.2	October 15, 2013
4.3	Indenture, dated September 17, 2014, between Twitter, Inc. and U.S. Bank National Association.	8-K	001-36164	4.1	September 17, 2014
4.4	Form of Global 0.25% Convertible Senior Note due 2019 (included in Exhibit 4.1)	8-K	001-36164	4.2	September 17, 2014
4.5	Indenture, dated September 17, 2014, between Twitter, Inc. and U.S. Bank National Association.	8-K	001-36164	4.3	September 17, 2014
4.6	Form of Global 0.25% Convertible Senior Note due 2019 (included in Exhibit 4.3)	8-K	001-36164	4.4	September 17, 2014
4.7	Form of Selling Stockholder Agreement	S-3ASR	333-204775	4.4	June 5, 2015
10.1*	Form of Indemnification Agreement between Twitter, Inc. and each of its directors and executive officers.	S-1	333-191552	10.1	October 3, 2013
10.2*	Twitter, Inc. 2013 Equity Incentive Plan and related form agreements.	S-1/A	333-191552	10.2	October 22, 2013
10.3*	Twitter, Inc. 2013 Employee Stock Purchase Plan and related form agreements.	S-8	333-192150	4.3	November 7, 2013
10.4*	Twitter, Inc. 2007 Equity Incentive Plan and related form agreements.	S-1	333-191552	10.4	October 3, 2013

10.5*	Form of Performance-Based Restricted Stock Unit Award Agreement for Executives, including Notice of Grant, under the Twitter, Inc. 2013 Equity Incentive Plan.	S-8	333-209840	4.4	March 1, 2016
10.6*	Twitter, Inc. 2016 Equity Incentive Plan and related form agreements.	S-8	333-212740	4.2	July 29, 2016
10.7*	Twitter, Inc. 2011 Acquisition Option Plan.	S-1	333-191552	10.5	October 3, 2013
10.8*	Afterlive.tv Inc. 2010 Stock Plan.	S-8	333-198055	4.4	August 11, 2014
10.9*	Apps & Zerts, Inc. 2013 Stock Plan.	S-8	333-195743	4.2	May 6, 2014
10.10*	Bluefin Labs, Inc. 2008 Stock Plan.	S-1	333-191552	10.6	October 3, 2013
10.11*	CardSpring Inc. Amended and Restated 2011 Equity Incentive Plan.	S-8	333-198055	4.3	August 11, 2014
10.12*	Crashlytics, Inc. 2011 Stock Plan.	S-1	333-191552	10.7	October 3, 2013

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date
10.13*	Gnip, Inc. 2008 Incentive Plan, as amended.	S-8	333-195743	4.3	May 6, 2014
10.14*	Magic Pony Technology Limited EMI Share Option Scheme	S-8	333-212740	4.3	July 29, 2016
10.15*	Mixer Labs, Inc. 2008 Stock Plan.	S-1	333-191552	10.8	October 3, 2013
10.16*	MoPub Inc. 2010 Equity Incentive Plan.	S-1/A	333-191552	10.9	November 4, 2013
10.17*	TapCommerce Inc. 2012 Stock Incentive Plan.	S-8	333-198055	4.5	August 11, 2014
10.18*	Twitter, Inc. Executive Incentive Compensation Plan.	S-1	333-191552	10.9	October 3, 2013
10.19*	Twitter, Inc. Change of Control and Involuntary Termination Protection Policy.	10-Q	001-36164	10.1	August 11, 2014
10.20*	Twitter, Inc. Outside Director Compensation Policy	10-K	001-36164	10.23	March 6, 2014
10.21*	Twitter, Inc. 2013 Target Commission Plan.	S-1/A	333-191552	10.20	October 22, 2013
10.22*	Offer Letter between Twitter, Inc. and Jack Dorsey, dated as of June 11, 2015.	8-K	001-36164	10.1	June 11, 2015
10.23*	Letter Agreement between Twitter, Inc. and Omid R. Kordestani, dated as of October 13, 2015.	8-K	001-36164	10.1	October 16, 2015
10.24*	Offer Letter between Twitter, Inc. and Anthony Noto, dated as of June 30, 2014.	8-K	333-191552	10.1	July 1, 2014
10.25*	Offer Letter between Twitter, Inc. and Adam Bain, dated as of October 1, 2013.	S-1/A	333-191552	10.14	October 22, 2013
10.26*	Offer Letter between Twitter, Inc. and Vijaya Gadde, dated as of October 1, 2013.	S-1/A	333-191552	10.16	October 22, 2013
10.27*	Offer Letter between Twitter, Inc. and Robert Kaiden, dated as of April 24, 2015.	8-K	001-36164	10.1	June 4, 2015
10.28*	Amended and Restated Change of Control Severance Policy Participation Agreement between Twitter, Inc. and Anthony				

	Noto, dated as of November 21, 2016				
10.29*	Contribution Agreement, dated October 22, 2015, by and between Twitter, Inc. and the Jack Dorsey Revocable Trust dated December 8, 2010	8-K	001-36164	10.1	October 22, 2015
10.30	Form of Innovator's Patent Agreement.	S-1	333-191552	10.19	October 3, 2013
10.31	Office Lease between Twitter, Inc. and SRI Nine Market Square LLC, dated as of April 20, 2011, as amended on May 16, 2011, September 30, 2011 and June 1, 2012.	S-1	333-191552	10.18	October 3, 2013
10.32	Revolving Credit Agreement among Twitter, Inc., the lenders party thereto and Morgan Stanley Senior Funding, Inc., as Administrative Agent, dated as of October 22, 2013.	S-1	333-191552	10.21	October 22, 2013

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date
10.33	Amendment No. 1, dated September 10, 2014, to the Revolving Credit Agreement, dated October 22, 2013, among Twitter, Inc., Morgan Stanley Senior Funding, Inc., as administrative agent, and the lenders from time to time party thereto.	8-K	001-36164	10.1	September 10, 2014
10.34	Purchase Agreement, dated September 11, 2014, by and among Twitter, Inc. and Goldman, Sachs & Co. and Morgan Stanley & Co. LLC, as representatives of the initial purchasers named therein.	8-K	001-36164	10.1	September 17, 2014
10.35	Form of Convertible Note Hedge Confirmation.	8-K	001-36164	10.2	September 17, 2014
10.36	Form of Warrant Confirmation.	8-K	001-36164	10.3	September 17, 2014
21.1	List of subsidiaries of Twitter, Inc.	S-1	333-191552	21.1	October 15, 2013
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.				
24.1	Power of Attorney (contained on signature page hereto)				
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1†	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document.				
101.SCH	XBRL Taxonomy Schema Linkbase Document				
101.CAL	XBRL Taxonomy Definition Linkbase Document.				
101.DEF	XBRL Taxonomy Calculation Linkbase Document.				
101.LAB	XBRL Taxonomy Labels Linkbase Document.				

101.PRE XBRL Taxonomy Presentation Linkbase Document.

* Indicates a management contract or compensatory plan or arrangement.
† The certifications attached as Exhibit 32.1 that accompany this Annual Report on Form 10-K, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Twitter, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing.