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 January 31, 2018

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: 001-38069

CLOUDERA, INC.

(Exact name of registrant as specified in its charter)

Delaware	**26-2922329**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. employer identification no.)**

395 Page Mill Road
Palo Alto, CA 94306
(650) 362-0488
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, $0.00005 par value per share	**New York Stock Exchange**

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

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

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the 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 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, a smaller reporting company, or a emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☐
(Do not check if a smaller reporting company)		Emerging growth company	☒
If an emerging growth company, indicate by checkmark if the registrant has not elected to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2 (B) of the Securities Act			☐

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

The aggregate market value of voting stock and non-voting common equity held by non-affiliates of the Registrant as of July 31, 2017, based on the closing price of $17.25 for shares of the Registrant's common stock as reported by the New York Stock Exchange on such date, was approximately $1,170.9 million . Shares of common stock beneficially owned by each executive officer, director, and holder of more than 10% of our common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 31, 2018, there were 147,518,480 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Information required in response to Part II and Part III of Form 10-K is hereby incorporated by reference to portions of the Registrant's Proxy Statement for the Annual Meeting of Stockholders to be held in 2018. The Proxy Statement will be filed by the Registrant with the Securities and Exchange Commission no later than 120 days after the end of the Registrant's fiscal year ended January 31, 2018.

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PART I

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements regarding future events and our future results that are based on our current expectations, estimates, forecasts and projections about our business, our results of operations, the industry in which we operate and the beliefs and assumptions of our management. Words such as "believe," "may," "will," "estimate," "continue," "anticipate," "would," "could," "should," "intend" and "expect," variations of these words, and similar expressions are intended to identify those forward-looking statements. These forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in this Report under the section entitled "Risk Factors" in Item 1A of Part I and elsewhere herein, and in other reports we file with the Securities and Exchange Commission (SEC). While forward-looking statements are based on the reasonable expectations of our management at the time that they are made, you should not rely on them. We undertake no obligation to revise or update publicly any forward-looking statements for any reason, whether as a result of new information, future events or otherwise, except as may be required by law.

ITEM 1. BUSINESS

Overview

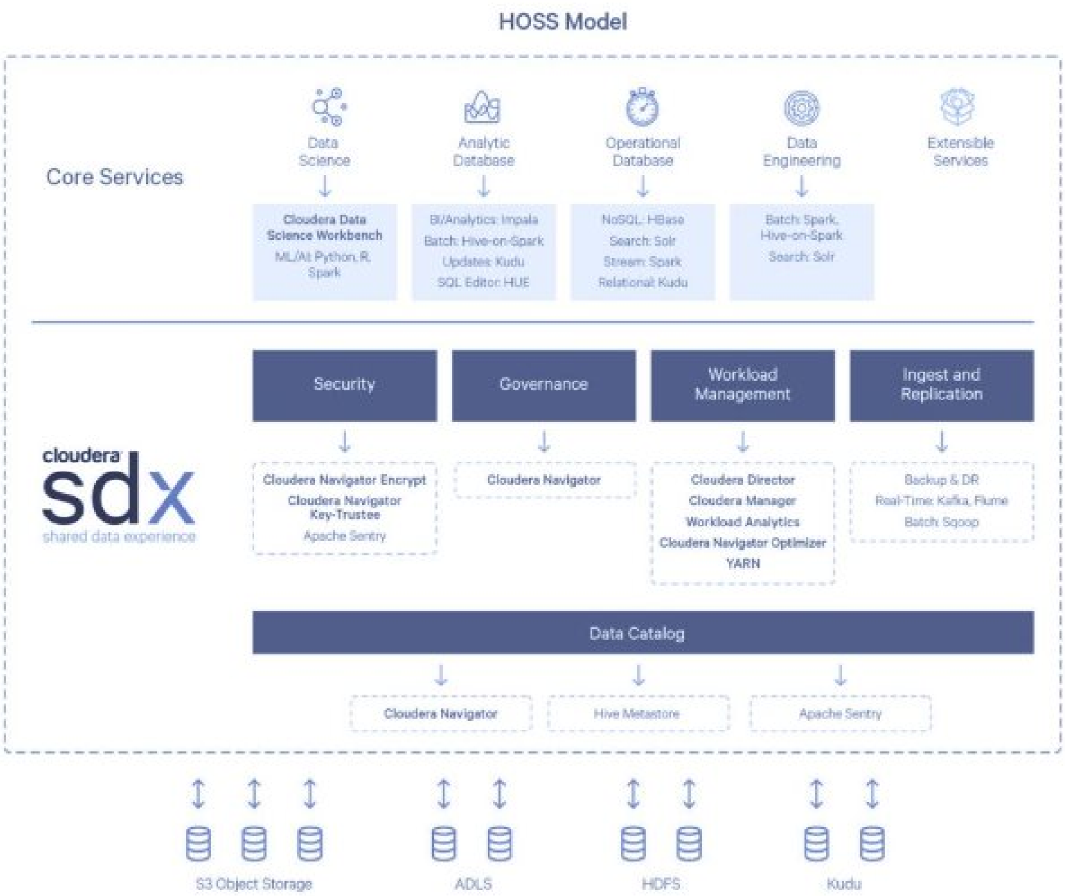
Cloudera empowers organizations to become data-driven enterprises. We have developed the modern platform for machine learning and analytics, optimized for the cloud. We collaborate extensively with the global open source community, continuously innovate in data management technologies and leverage the latest advances in infrastructure including the public cloud for "big data" applications. Our pioneering hybrid open source software (HOSS) model incorporates the best of open source with our robust proprietary software to form an enterprise-grade platform. This platform delivers an integrated suite of capabilities for data management, machine learning and advanced analytics, affording customers an agile, scalable and cost effective solution for transforming their businesses. Our platform enables organizations to use vast amounts of data from a variety of sources, including the Internet of Things (IoT), to better serve and market to their customers, design connected products and services and reduce risk through greater insight from data.

Our scale-out distributed architecture delivers high performance on inexpensive industry-standard hardware and cloud infrastructure. We allow enterprises to operate, manage and move workloads across multiple architectures, mixing on-premises and cloud environments, including all major public cloud infrastructure providers – Amazon Web Services, Microsoft Azure and Google Cloud Platform – as well as managed service providers (MSPs). We also enable enterprises' "multi-cloud" strategies, allowing them to move workloads from the data center to the public cloud, among public cloud vendors, and back again, thus avoiding cloud lock-in. This flexibility allows customers to continually determine and implement the most cost-efficient strategies.

We offer our software platform primarily on a subscription basis and focus our selling efforts on the largest corporate enterprises and public sector organizations globally. We target these organizations because they capture and manage the majority of the world's data and operate highly complex IT environments. These organizations are likely to realize the greatest value from our enterprise-grade platform. We have achieved significant growth and global scale in a relatively short period of time. Our customers continue to expand their usage of our platform. The net expansion rate for our subscription revenue was 136% as of January 31, 2018. A growing, vibrant ecosystem of systems integrators, software developers, resellers, OEMs, data systems vendors and public cloud providers has developed around our platform. As part of this ecosystem, we have developed a strategic partnership with Intel Corporation, or Intel, to optimize our software for use with Intel processors and architecture.

Our Offerings

We have pioneered the HOSS model, open source software that is combined with proprietary software, for specific applications and to meet enterprise-grade requirements. By integrating robust proprietary software with our open source platform built on the leading data management, machine learning and advanced analytics technologies such as Hadoop and Spark, we deliver a unique, high-performance and cost-effective platform to our customers for managing, analyzing and securing their data.



Platform Editions

Cloudera Enterprise is our machine learning and analytics platform with enterprise-scale data processing and multi-function analytics optimized for the cloud. We primarily offer subscriptions for the following five editions of our software platform to address the most common and critical data challenges enterprises face, including:

- **Cloudera Enterprise Data Hub.** The Enterprise Data Hub combines our Analytic DB, Operational DB, and Data Science and Engineering products with our shared data experience (SDX) technology. It allows companies to execute multiple analytic functions against a shared set of governed and secure data in public clouds, private clouds and data centers in bare metal configurations.

- **Cloudera Data Science and Engineering.** Cloudera Data Science and Engineering enables users to streamline, simplify, and scale big data processing (ETL) regardless of where data is stored - on-premises, across public clouds, or both. It accelerates exploratory data science and machine learning models at scale by taking advantage of massive parallel compute and expanded data streams .

- **Cloudera Operational DB.** Cloudera Operational DB enables stream processing and real-time analytics on continuously changing data. It delivers a secure low latency, high-concurrency experience that processes more data, from more sources (including IoT), powered by HBase, a column-based NoSQL store for unstructured data, and Kudu, a relational store for structured data.

- **Cloudera Analytic DB.** Cloudera Analytic DB brings high performance SQL analytics to big data, powered by Apache Impala. It optimizes enterprise data warehouses, decreasing storage costs and eliminating access contention, by enabling self-service access for more users, while integrating with leading business intelligence tools.

- **Cloudera Essentials.** Cloudera Essentials is our “data lake” offering combining CDH - our market-leading open source distribution - with Cloudera support.

Other Technologies and Solutions

We continue to innovate and develop new technologies and solutions to extend our market leadership and enhance our platform for machine learning and analytics optimized for the cloud. Other notable additions to our offerings include:

- **Cloudera Altus.** Cloudera Altus is our platform-as-a-service (PaaS) offering. Altus is a cloud service that simplifies the use of our platform by eliminating the need to install, manage and update our software. With Altus, we enable customers to address a new set of elastic and transient workloads that would otherwise be impractical to run in the datacenter.

- **Cloudera Data Science Workbench.** Cloudera Data Science Workbench enables self-service data science for the enterprise. Data Science Workbench is a multi-user, multi-language development environment for data science and machine learning applications. It manages the various steps of the model development lifecycle including versioning, dependency management, scheduling, multi-user collaboration and training models on disparate types of compute.

- **Cloudera Fast Forward Labs.** Cloudera Fast Forward Labs delivers applied research in machine learning and artificial intelligence to our customers. Fast Forward Labs surveys academic and industrial research for developments in the field, enabling customers to benefit from advances in applied machine learning and artificial intelligence and is designed primarily to drive increased consumption of our software.

- **Cloudera SDX.** Cloudera SDX is a modular software framework that enables our customers to have a “shared data experience.” By applying a centralized, consistent framework for schema, security, governance, data ingest and more, SDX enables multiple analytic applications to run against shared or overlapping sets of data. SDX supports multiple public cloud, private cloud and bare metal configurations and deployment options.

Our Platform Technology

Differentiated Open Source

Our platform offerings are based on open source components developed in partnership with the broader open source community. Our engineers are actively involved in the development of the open source elements included in our platform and carefully curate which open source projects are integrated into the platform, ensuring interoperability and optimizing performance. The precise composition of the platform in its integrated form is unique to Cloudera and highly differentiated.

- ***Integrate.*** Data comes from an increasing variety of sources in an increasing number of types. Our platform enables customers to capture digital information in any form from any source and collect it however it arrives – streaming continuously or in batches from external databases or other sources – and in any format, whether structured or unstructured.

- ***Store.*** We deliver storage software technologies that are optimized for a variety of data types, access patterns and performance requirements. These storage engines provide our customers with the scalability and cost efficiency to meet the data and size requirements of both on-premises and cloud architectures. These storage engines include HDFS, which provides vast scalability, as well as the NoSQL store (HBase) for data requiring more frequent updates **,** as well as object storage services Amazon’s Simple Storage Service (S3) and Microsoft’s Azure Data Lake Service (ADLS). We also offer an in-memory columnar relational store (Kudu), technology founded and contributed to the open source community by Cloudera engineers, designed especially for IoT and complex query workloads.

- ***Unified Services.*** Our platform provides a unified set of services including resource management and security for enterprise management, scalability and functionality. Our resource management capabilities schedule workloads and optimize the allocation of compute and memory capacity to maximize efficiency in data analysis, allowing customers to extract value faster and at lower cost. Our security framework (Sentry) controls data access down to the table, column or row and is backed by strong, centralized authentication. All data in our platform can be encrypted, and we provide enterprise-grade key management to protect information.

- ***Process, analyze and serve.*** Our platform is able to process, analyze and consistently deliver data at high levels of performance. By providing high performance per node, our customers can run their applications at higher rates of interactivity and operate at lower cost. We offer fast, flexible batch processing (the Spark, Hive, Pig and MapReduce projects) as well as rapid querying (Impala) and faceted search (Solr). Our platform also utilizes a variety of data science languages for predictive analysis and machine learning (Spark). Moreover, we offer the ability to analyze streaming data and compare it against reference data to generate insights and responses in real time.

Differentiated Proprietary Software

In addition to the open source elements included in our platform, we develop proprietary, robust systems management, data governance, and cloud automation components to scale, secure and optimize our platform for the enterprise.

- ***Operations.*** *Cloudera Manager* allows our customers to manage all of their clusters and workloads from a “single pane of glass.” It automates the operational aspects of our platform including patching, updating, upgrading, tuning, reconfiguring, monitoring, alerting and usage reporting. Using *Cloudera Manager* , customers can set up automated deployment of clusters and configurations with the ability to manage multiple development, test and production clusters. We provide complete visibility with advanced monitoring capabilities as well as information on jobs and query performance.

- ***Cloud enablement.*** *Cloudera Director* simplifies organizations’ ability to take advantage of public cloud infrastructure for data management, machine learning and advanced analytics and enables mixed architectural environments. *Cloudera Director* automates and abstracts cluster interactions with cloud infrastructure providers, including Amazon Web Services, Microsoft Azure and Google Cloud Platform, providing cloud automation and orchestration through an intuitive user interface.

- ***Data management.*** Our *Cloudera Navigato* r family of components provides a complete data governance system for the data managed in Cloudera clusters, offering critical capabilities such as data discovery, workload migration and optimization, audit, lineage, metadata tagging and data policy automation. This enables enterprises to track, classify and locate data to comply with business governance and compliance rules quickly and easily.
  - *Cloudera Navigator Audit and Lineage* provides a full auditable history of all data accesses with a unified searchable audit dashboard which, combined with integrated backup and disaster recovery, makes compliance and business continuity easy.
  - *Cloudera Navigator Optimizer* analyzes the SQL queries that customers use, whether against traditional enterprise data warehouses or their Cloudera installation, and offers advice for optimizing data layout in order to improve system performance. It simplifies the migration of traditional relational workloads from legacy systems to our platform so that customers can determine the optimal technology to run queries and store data to reduce costs and improve performance.
  - *Cloudera Navigator Encrypt and Key Trustee* are two complementary, and essential, components of our security capability. Our encryption technology allows customers to set and enforce the policies governing data encryption in the system.

Our Differentiation

Cloudera empowers organizations to become data-driven enterprises. We empower organizations to maximize the value of their most valuable asset - their data - to grow, connect and protect their business with our modern platform for machine learning and analytics optimized for the cloud. The key benefits and differentiators of our solution include:

- ***Integrated machine learning and analytics platform.*** Our platform enables data scientists to run massively iterative algorithms, including machine learning algorithms, over large volumes of data, to support a diverse range of relational and non-relational schemas and to express analytic workloads in multiple development and data science languages. These capabilities allow enterprises to identify trends in historical data, to recognize events in current or streaming data and to predict events in the future, continuously improving with experience
- ***Enable customers to leverage the latest open source innovation.*** Our platform integrates the latest innovations in open source data management technology. We were the first data platform vendor to incorporate Spark, and have demonstrated continuous commitment to open source through our adoption of projects such as Solr, Kafka, Impala and Kudu. We enable customers to capitalize on the business value of the latest open source technologies through our integrated, secure and high-performance platform.
- ***High performance scalability for low total cost of ownership.*** Our platform delivers performance improvements over legacy systems at lower cost. We do this by combining many small, inexpensive computers and pooling their storage and processing power in one or more "clusters," With just one installation of our platform, a customer can scale to hundreds of petabytes of data under management. Our platform allows customers to select the infrastructure environment- cloud and/or datacenter- that is most cost-effective and appropriate for each use case.
- ***Cloud and on-premises deployment at scale and across hybrid cloud environments*** . Our platform allows enterprises to manage both long-lived and transient workloads across environments, mixing on-premises and public cloud infrastructure, including all major public cloud vendors – Amazon Web Services, Microsoft Azure and Google Cloud Platform. Customers can deploy, configure and monitor their clusters and workloads at scale from a centralized interface across any mix of public cloud or on-premises

environments. We offer configurable monitoring, reporting and intuitive, robust troubleshooting to provide management of large, growing data sets and concurrent use cases.

- ***Enterprise-grade data security and governance.*** Our platform uses proprietary authentication, network isolation, user-and role-based permissions, access logging, auditing, lineage and encryption including sophisticated key management to provide comprehensive, enterprise-grade data security across the platform. The native security features of our platform require no additional third party licenses, further reducing costs to customers. In addition, our platform enables regulatory and industry-specific compliance through comprehensive data governance, including data discovery, data lineage, metadata tagging and policy enforcement.

- ***Our software platform is also available as a cloud service.*** Cloudera Altus is our cloud platform-as-a-service (PaaS) offering. It is designed to simplify the use of our platform by eliminating the need to install, manage and update our software. With Altus, we enable customers to address a new set of elastic and transient workloads that would otherwise be impractical to run in the datacenter.

Our Strategy

Key elements of our strategy include:

- ***Leading cloud innovation for big data.*** Our original architecture was designed for the cloud. Our software platform runs natively on public cloud infrastructure or is available as a Platform-as-a-Service.

- ***Growing our addressable market by expanding our offerings and the range of applications our platform can support.*** We intend to introduce complementary technology and offerings as well as to develop our platform's capabilities in order to support a wider range of data types, access patterns and use cases.

- ***Extending our position as the leader in hybrid open source software.*** We intend to continue to pioneer the HOSS model, innovating in our proprietary software concurrently with our work in open source.

- ***Continuing to rapidly acquire new customers.*** We focus our go-to-market efforts on large enterprises; as well as large public sector organizations globally. We target these organizations because they capture and manage the majority of the world's data and operate highly complex IT environments.

- ***Accelerating existing customer expansion.*** Our goal is to enable customers to access all available data and to extract greater value from it. We intend to broaden our relationships with existing customers by helping them identify new use cases, modernize their data architectures and gain more insight from their data.

- ***Leveraging our partner ecosystem.*** We intend to maintain strong engagement with our partner ecosystem to gain increased reach and greater distribution of our software, develop new applications, accelerate customer expansion and penetrate new markets.

- ***Showcasing a data-driven business with our own operations.*** We use our own platform to capture, process and analyze information across our organization to improve our engineering, sales, support and finance functions.

- ***Cultivating a passion for solving the world's greatest challenges through data.*** We aim to create a culture and build passion among our employees, our partners and our customers for using data to solve the world's biggest problems.

Customers

We focus on the largest corporate enterprises and public sector organizations globally. These organizations are likely to realize the greatest value from utilizing our enterprise-grade platform. As of January 31, 2018 , we had more than 1,200 customers.

No individual customer represented more than 10% of revenue in fiscal 2018, 2017 or 2016.

Customer Support, Services and Education

We have built a company culture that focuses on consistently delivering value for our customers and ensuring their success and satisfaction. We deliver exceptional support, professional services and training to ensure our customers get the most out of our technology. We offer technical assistance through our large and experienced global support organization. Built on powerful predictive analytics using our own technology, we proactively monitor our customers' platforms to prevent issues before they arise, avoid common cluster misconfigurations, and suggest optimization based on similar cases at other customers. Our predictive analytics allow us to proactively initiate a substantial fraction of our support engagements for customers, before they realize that they have a problem themselves.

In addition, our teams of experienced solution architects, business value consultants and training professionals are designed to enhance the customer experience with personalized assistance, from implementation and best practices to education and online training. We believe that we can further advance the community's goals through education. In addition to offering online training, we have trained over 45,000 individuals in person through January 31, 2018 . Through the Cloudera Academic Program, we provide access to curriculum, software and training to colleges and universities to accelerate the adoption of the platform.

Sales and Marketing

We primarily sell through our direct sales force, which is comprised of field and inside sales personnel and was organized by enterprise size and geography in fiscal 2018. Based on our experience and analysis of customer buying behavior, beginning in fiscal 2019, we have refined our sales methodology to include field personnel dedicated primarily to acquiring new customers and field personnel dedicated primarily to expanding our relationships with existing customers.

Our sales force is supported by sales engineers with deep technical expertise and responsibility for pre-sales technical support, solutions engineering for our end-customers, and technical training for our channel and strategic partners.

We generate customer leads, accelerate sales opportunities, and build brand awareness through our marketing programs and through our strategic partner relationships. Our marketing programs target both the C-suite and the line of business owners, technology professionals and risk professionals, as well as software developers and data scientists. Our principal marketing programs include:

- webinars, user conferences and events that we sponsor, such as Strata Data Conference;
- cooperative marketing efforts with partners; and
- use of our website.

Partners and Strategic Alliances

We believe that strong engagement with our partner ecosystem affords us increased reach and greater distribution of our software, enhancing our field organization's efforts. We have developed a large partner network in order to facilitate the establishment of industry standards, ensure an open ecosystem for our customers, accelerate the adoption of our platform and extend our sales capabilities and coverage. Over 3,000 vendors – a variety of systems integrators, resellers, software and OEM partners, data systems vendors, and cloud and platform vendors – have registered under our Cloudera Connect partner program to gain access to marketing, sales, training and support resources.

Our partners and strategic alliances include:

- ***Systems integrators and resellers.*** Hundreds of systems integrators offer professional services to create custom solutions built on our platform for their customers across a variety of industry verticals. Resellers offer our platform to their customers in combination with their products.

- ***Software and OEM partners.*** Our technology partners offer solutions designed to work with or built on our platform. Hundreds of certified solutions have been tested and validated to run on our platform.
- ***Data systems vendors.*** We ensure that our platform is interoperable with a variety of traditional data systems vendors.
- ***Cloud and platform vendors.*** To ensure our customers can run our software in any environment, we nurture relationships with public cloud providers and other enterprise platforms to integrate and achieve the highest interoperability across architectures.

Intel Strategic Partnership

In 2014, in connection with an equity investment in the company, we entered into a strategic collaboration and optimization agreement with Intel. This agreement was renewed and expanded in February 2018. Consistent with Intel's data center, IoT, machine learning and artificial intelligence technology initiatives, the primary objective of the partnership is to ensure that our solutions deliver optimal performance and security with Intel processors and platform technology today and in the future.

Research and Development

Our research and development organization is responsible for the design and development of our solutions. We focus on developing new services and technologies and further enhancing the functionality, reliability and performance of our existing solutions. Total research and development expense for fiscal 2018, 2017 and 2016 was $215.7 million , $102.3 million and $99.3 million , respectively.

Competition

We operate in an intensely competitive data management, analytics and machine learning market that is characterized by the constant development of new products and continued innovation, particularly in the open source community and among the major public cloud infrastructure providers. Our main sources of current and potential competition fall into four categories:

- legacy data management product providers;
- public cloud providers who include proprietary data management and analytics offerings;
- strategic and technology partners who may also offer our competitors' technology or otherwise partner with them; and
- open source companies, as well as internal IT organizations that provide open source self-support for their enterprises.

As the market for data management, analytics and machine learning platforms continues to grow and offerings based on the open source data management ecosystem continue to gain traction, we expect more highly specialized vendors will enter the market or larger competitors will bundle solutions with their products more effectively.

The principal competitive factors in our market include:

- ability to deploy in a variety of infrastructure environments, including multi-cloud capability;
- ability to identify and leverage innovative open source technologies;
- product price, functionality, and ease of use;
- enablement of machine learning and other advanced technologies;

- enterprise-grade performance and features such as scalability, security, cost of ownership and ease of deployment and use of applications;
- breadth, depth and quality of application functionality;
- domain expertise and understanding of customer requirements across verticals;
- ability to innovate and respond to customer needs rapidly;
- quality and responsiveness of services and support organizations and level of customer satisfaction;
- brand awareness and reputation;
- size of customer base and level of user adoption; and
- ability to integrate with legacy and other enterprise infrastructures and third-party applications.

We believe that we compete favorably on the basis of these factors. Our ability to remain competitive will largely depend on our ongoing performance in the areas of cloud and integration of open source and advanced technologies.

Intellectual Property

Intellectual property is an important aspect of our business, and we seek protection for our intellectual property as appropriate. To establish and protect our proprietary rights, we rely upon a combination of patent, copyright, trade secret and trademark laws and contractual restrictions such as confidentiality agreements, licenses and intellectual property assignment agreements. We maintain a policy requiring our employees, contractors, consultants and other third parties to enter into confidentiality and proprietary rights agreements to control access to our proprietary information. These laws, procedures and restrictions provide only limited protection, and any of our intellectual property rights may be challenged, invalidated, circumvented, infringed or misappropriated. Furthermore, the laws of certain countries do not protect proprietary rights to the same extent as the laws of the United States, and we therefore may be unable to protect our proprietary technology in certain jurisdictions. Moreover, our platform incorporates software components licensed to the general public under open source software licenses such as the Apache 2.0 Software License. We obtain many components from software developed and released by contributors to independent open source components of our platform. Open source licenses grant licensees broad permissions to use, copy, modify and redistribute our platform. As a result, open source development and licensing practices can limit the value of our software copyright assets.

As of January 31, 2018, we had been granted 27 U.S. patents and had 15 U.S. patent applications pending. Our patents expire between 2030 and 2035. We also had nine issued patents and four patent applications pending in foreign jurisdictions. We continually review our development efforts to assess the existence and patentability of new intellectual property. We pursue the registration of our domain names, trademarks and service marks in the United States and in certain locations outside the United States. To protect our brand, we file trademark registrations in some jurisdictions

Employees

As of January 31, 2018 , we had 1,648 full-time employees. Of these employees, 1,134 are in the United States and 514 are in our international locations. None of our employees is represented by a labor union or covered by collective bargaining agreements. We have not experienced any work stoppages. We consider our relationship with our employees to be good.

Cloudera Foundation

In January 2017, we established the Cloudera Foundation as an independent non-profit organization and issued 1,175,063 shares of our common stock to it. In conjunction with the initial public offering, we contributed 1% of the net proceeds of our initial public offering, or $2.4 million, to fund the Cloudera Foundation. The Cloudera Foundation was created to use the power of data to improve the lives of people around the world by providing our products, skills and people. We believe that the Cloudera Foundation fosters employee morale, strengthens our community presence and provides increased brand visibility.

Information about Geographic Revenue

Information about geographic revenue is described in Note 11, “Segment Information” in the notes to our consolidated financial statements.

Corporate Information

We were incorporated in the state of Delaware in June 2008. Our principal executive offices are located at 395 Page Mill Road, Palo Alto, California 94306 and our telephone number is (650) 362-0488. Our website address is www.cloudera.com. The information on, or that can be accessed through, our website is not part of this Annual Report.

Unless the context indicates otherwise, the terms “Cloudera,” “the Company,” “we,” “us,” and “our” refer to Cloudera, Inc., a Delaware corporation, together with its consolidated subsidiaries, unless otherwise noted.

Cloudera, the Cloudera logo, and other registered or common law trade names, trademarks, or service marks of Cloudera appearing in this Annual Report are the property of Cloudera. This Annual Report contains additional trade names, trademarks, and service marks of other companies that are the property of their respective owners. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us, by these other companies. Solely for convenience, our trademarks and tradenames referred to in this Annual Report appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor, to these trademarks and tradenames.

Available Information

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to reports filed or furnished pursuant to Sections 13(a), 14 and 15(d) of the Exchange Act. The public may obtain these filings at the Securities and Exchange Commission, or SEC, Public Reference Room at 100 F Street, NE, Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at http://www.sec.gov that contains reports, and other information regarding us and other companies that file materials with the SEC electronically. Copies of our reports on Forms 10-K, Forms 10-Q, and Forms 8-K, may be obtained, free of charge, electronically through our corporate website at www.cloudera.com as soon as reasonably practicable after we file such material electronically with, or furnish to, the SEC.

ITEM 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this Annual Report on Form 10-K, including our consolidated financial statements and the related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could materially and adversely affect our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently believe are not material may also impair our business, financial condition, results of operations and growth prospects .

Risks Related to our Business

We have a history of losses, and we may not become profitable in the future.

We have incurred net losses since our founding in 2008, including net losses of $385.8 million , $187.3 million and $203.1 million and for the years ended January 31, 2018 , 2017 , and 2016 respectively, and expect to continue to incur net losses for the foreseeable future. As a result, we had an accumulated deficit of $1,061.8 million at January 31, 2018 . These losses and accumulated deficit reflect the substantial investments we made to acquire new customers, commercialize our platform, participate in the open source development community and develop our proprietary software components under our hybrid open source software (HOSS) model, and continue to develop our platform. Furthermore, to the extent we are successful in increasing our customer base, we may also incur increased losses because customer acquisition costs and upfront costs associated with new customers are higher in the first year than the aggregate revenue we recognize from those new customers in the first year.

We expect to continue to make significant future expenditures related to the development and expansion of our business, including:

- investments in our research and development team and in the development of new solutions and enhancements of our platform, including contributions to the open source data management ecosystem;
- investments in sales and marketing, including expanding our sales force, increasing our customer base, increasing market awareness of our platform and development of new technologies;
- expanding of our operations and infrastructure, including internationally;
- hiring additional employees; and
- incurring costs associated with general administration, including legal, accounting and other expenses related to being a public company.

As a result of these increased expenses, we will have to generate and sustain increased revenue to be profitable in future periods. Further, in future periods, our revenue growth rate could decline, and we may not be able to generate sufficient revenue to offset higher costs and achieve or sustain profitability. If we fail to achieve, sustain or increase profitability, our business and operating results could be adversely affected.

We have a short operating history, which makes it difficult to predict our future results of operations.

We have a short operating history, which limits our ability to forecast our future results of operations and subjects us to a number of uncertainties, including our ability to plan for and anticipate future growth. Our historical revenue growth should not be considered indicative of our future performance. Further, in future periods, our revenue growth could slow or our revenue could decline for a number of reasons, including slowing demand for our solutions, increasing competition, a decrease in the growth of our overall market, or our failure, for any reason, to continue to capitalize on growth opportunities. We have also encountered and will encounter risks and uncertainties frequently experienced by growing companies in rapidly changing industries, such as determining appropriate investments of our limited resources, market reception of our platform and HOSS model, competition from other companies, attracting and retaining customers, hiring, integrating, training and retaining skilled personnel, developing new solutions and unforeseen expenses. If our assumptions regarding these risks and uncertainties, which we use to plan our business, are incorrect or change, or if we do not address these risks successfully, our operating and financial results could be adversely affected.

If the market for our data management, machine learning and analytics platform develops more slowly than we expect, our growth may slow or stall, and our operating results could be harmed.

The market for a data management, machine learning and analytics platform is relatively new, rapidly evolving and unproven. Our future success will depend in large part on our ability to penetrate the existing market for data management, machine learning and analytics platforms, as well as the continued growth and expansion of that market. It is difficult to predict customer adoption and renewals of our subscriptions, customer demand for our platform, the size, growth rate and expansion of this market, the entry of competitive products or the success of existing competitive products. For example, our revenue net expansion rate is 136% , as compared to 142% in the same period a year ago. Our ability to penetrate the existing market for data management, machine learning and analytics platforms and any expansion of that market depends on a number of factors, including the cost, performance and perceived value associated with our platform, as well as potential customers' willingness to adopt an alternative approach to data collection, storage and processing. If we or other data management providers experience security incidents, loss of customer data, disruptions in delivery or other problems, the market for data management, machine learning and analytics platforms as a whole, including our solutions, may be negatively affected. Furthermore, many potential customers have made significant investments in legacy data collection, storage and processing software and may be unwilling to invest in new solutions. If data management, machine learning and analytics platforms do not achieve widespread adoption, or there is a reduction in demand caused by a lack of customer acceptance, technological challenges, weakening economic conditions, security or privacy concerns, competing technologies and products, decreases in corporate spending or otherwise, it could result in decreased revenue and our business could be adversely affected.

We face intense competition and could lose market share to our competitors, which could adversely affect our business, financial condition and results of operations.

The market for data management, machine learning and analytics platforms is intensely competitive and characterized by rapid changes in technology, customer requirements, industry standards and frequent new product introductions and improvements. We anticipate continued challenges from current competitors, which in many cases are more established and enjoy greater resources than us, as well as by new entrants into the industry. If we are unable to anticipate or effectively react to these competitive challenges, our competitive position could weaken, and we could experience a decline in our growth rate or revenue that could adversely affect our business and results of operations.

Our main sources of current and potential competition fall into four categories:

- legacy data management product providers such as HP, IBM, Oracle and Teradata;
- public cloud providers who include proprietary data management, machine learning and analytics offerings, such as Amazon Web Services, Google Cloud Platform and Microsoft Azure;
- strategic and technology partners who may also offer our competitors' technology or otherwise partner with them, including our strategic partners who provide Partner Solutions (see "Business—Partners and Strategic Alliances") as they may offer a substantially similar solution based on a competitor's technology; and
- open source companies, including Hortonworks and MapR, as well as internal IT organizations that provide open source self-support for their enterprises.

Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as:

- greater name recognition, longer operating histories and larger customer bases;
- larger sales and marketing budgets and resources and the capacity to leverage their sales efforts and marketing expenditures across a broader portfolio of products;
- broader, deeper or otherwise more established relationships with technology, channel and distribution partners and customers;
- wider geographic presence or greater access to larger customer bases;
- greater focus in specific geographies;
- lower labor and research and development costs;
- larger and more mature intellectual property portfolios; and
- substantially greater financial, technical and other resources to provide support, to make acquisitions and to develop and introduce new products.

In addition, some of our larger competitors have substantially broader and more diverse product and service offerings and may be able to leverage their relationships with distribution partners and customers based on other products or incorporate functionality into existing products to gain business in a manner that discourages users from purchasing our platform, including by selling at zero or negative margins, product bundling or offering closed technology platforms such as IBM Watson. Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier regardless of platform performance or features. As a result, even if the features of our platform are superior, customers may not purchase our solutions. These larger competitors often have broader product lines and market focus or greater resources and may therefore not be as susceptible to economic downturns or other significant reductions in capital spending by customers. If we are unable to sufficiently differentiate our solutions from the integrated or bundled products of our competitors, such as by offering enhanced functionality, performance or value, we may see a decrease in demand for those solutions, which could adversely affect our business, operating results and financial condition.

In addition, new innovative start-up companies, and larger companies that are making significant investments in research and development, may introduce products that have greater performance or functionality, are easier to implement or use, or incorporate technological advances that we have not yet developed or implemented or may invent similar or superior products and technologies that compete with our platform. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources.

Some of our competitors have made or could make acquisitions of businesses or enter into partnerships that allow them to offer more competitive and comprehensive solutions. As a result of such arrangements, our current or potential competitors may be able to accelerate the adoption of new technologies that better address customer needs, devote greater resources to bring these products and services to market, initiate or withstand substantial price competition, or develop and expand their product and service offerings more quickly than we do. These competitive pressures in our market or our failure to compete effectively may result in fewer orders, reduced revenue and gross margins and loss of market share. In addition, it is possible that industry consolidation may impact customers’ perceptions of the viability of smaller or even mid-size software firms and consequently customers’ willingness to purchase from such firms.

We may not compete successfully against our current or potential competitors. If we are unable to compete successfully, or if competing successfully requires us to take costly actions in response to the actions of our competitors, our business, financial condition and results of operations could be adversely affected. In addition, companies competing with us may have an entirely different pricing or distribution model. Increased competition could result in fewer customer orders, price reductions, reduced operating margins and loss of market share. Further, we may be required to make substantial additional investments in research, development, marketing and sales in order to respond to such competitive threats, and we cannot assure you that we will be able to compete successfully in the future.

Because of the characteristics of open source software, there may be fewer technology barriers to entry in the hybrid open source market by new competitors and it may be relatively easy for new and existing competitors with greater resources than we have to compete with us.

One of the characteristics of open source software is that the governing license terms generally allow liberal modifications of the code and distribution thereof to a wide group of companies and/or individuals. As a result, others could easily develop new software products based upon those open source programs that compete with existing open source software that we support and incorporate into our platform. Such competition with use of the open source projects that we utilize can materialize without the same degree of overhead and lead time required by us, particularly if the customers do not value the differentiation of our proprietary components. It is possible for new and existing competitors with greater resources than ours to develop their own open source software or hybrid proprietary and open source software offerings, potentially reducing the demand for, and putting price pressure on, our platform. In addition, some competitors make open source software available for free download and use or may position competing open source software as a loss leader. We cannot guarantee that we will be able to compete successfully against current and future competitors or that competitive pressure and/or the availability of open source software will not result in price reductions, reduced operating margins and loss of market share, any one of which could seriously harm our business.

If our customers do not renew or expand their subscriptions, or if they renew on less favorable terms, our future revenue and operating results will be harmed.

Our future success depends, in part, on our ability to sell renewals of subscriptions and expand the deployment of our platform with existing customers. While we generally offer subscriptions of up to three years in length, our customers typically purchase one-year subscriptions which generally do not provide for automatic renewal or a right to terminate the subscription early. Our customers may not renew or expand the use of their subscriptions after the expiration of their current subscription agreements. In addition, our customers may opt for a lower-priced edition of our platform or decrease their usage of our platform. Our existing customers generally have no contractual obligation to expand or renew their subscriptions after the expiration of the committed subscription period and given our limited operating history, we may not be able to accurately predict customer renewal rates. Our customers' renewal and/or expansion pricing rates may decline or fluctuate as a result of factors, including, but not limited to, their satisfaction with our platform and our customer support, the frequency and severity of software and implementation errors, our platform's reliability, the pricing of our subscriptions and services, or competing solutions or services, the effects of global economic conditions and their ability to continue their operations and spending levels. If our customers renew their subscriptions, they may renew for shorter contract lengths, less usage or on other terms that are less economically beneficial to us. We have limited historical data with respect to rates of customer subscription renewals, so we may not accurately predict future renewal trends. We cannot assure you that our customers will renew or expand their subscriptions, and if our customers do not renew their agreements or renew on less favorable terms or for less usage, our revenue may grow more slowly than expected or decline and our business could suffer.

Achieving renewal or expansion of subscriptions may require us to increasingly engage in sophisticated and costly sales efforts that may not result in additional sales. In addition, the rate at which our customers expand the deployment of our platform depends on a number of factors, including general economic conditions, the functioning of our solutions, the ability of our field organization, together with our partner ecosystem, to assist our customers in identifying new use cases, modernizing their data architectures, and achieving success with data-driven initiatives and our customers' satisfaction with our customer support. If our efforts to expand penetration within our customers are not successful, our business may suffer.

Our sales cycles can be long, unpredictable and vary seasonally, particularly with respect to large subscriptions, and our sales efforts require considerable time and expense.

Our results of operations may fluctuate, in part, because of the resource-intensive nature of our sales efforts, the length and variability of the sales cycle for our platform and the difficulty in making short-term adjustments to our operating expenses. The timing of our sales is difficult to predict. The length of our sales cycle, from initial evaluation to payment for our subscriptions is generally four to nine months, but can vary substantially from customer to customer. Our sales cycle can extend to more than 18 months for some customers. Our sales efforts involve educating our customers about the use, technical capabilities and benefits of our platform, solutions and HOSS model. Customers often undertake a prolonged evaluation process, which frequently involves not only our platform but also those of other companies. Some of our customers initially deploy our platform on a limited basis, with no guarantee that these customers will deploy our platform widely enough across their organization to justify our substantial pre-sales investment. As a result, it is difficult to predict exactly when, or even if, we will make a sale to a potential customer or if we can increase sales to our existing customers. Large individual sales have, in some cases, occurred in quarters subsequent to those we anticipated, or have not occurred at all. If our sales cycle lengthens or our substantial upfront investments do not result in sufficient revenue to justify our investments, our operating results could be adversely affected.

We have seasonal and end-of-quarter concentration of our sales, which impacts our ability to plan and manage cash flows and margins. Our sales vary by season with the fourth quarter typically being our largest. In addition, within each quarter, most sales occur in the last month of that quarter. Therefore, it is difficult to determine whether we are achieving our quarterly expectations until near the end of the quarter, with seasonality magnifying the difficulty for determining whether we will achieve annual expectations. Most of our expenses are relatively fixed or require time to adjust. Therefore, if expectations for our business are not accurate, we may not be able to adjust our cost structure on a timely basis and margins and cash flows may differ from expectations.

We do not have an adequate history with our subscription or pricing models to accurately predict the long-term rate of customer adoption or renewal, or the impact these will have on our revenue or operating results.

We have limited experience with respect to determining the optimal prices and pricing models for our solutions. As the markets for our solutions mature, or as new competitors introduce new products or services that compete with ours, we may be unable to attract new customers at the same price or based on the same pricing model as we have used historically. Moreover, large customers, which are the focus of our sales efforts, may demand greater price concessions. Additionally, the renewal rate of our large customers may have more significant impact period to period on our revenue and operating results. As a result, in the future we may be required to reduce our prices, which could adversely affect our revenue, gross margin, profitability, financial position and cash flow. In addition, as an increasing amount of our business may move to our cloud-based solutions for transient workloads and the use of our consumption-based pricing model may represent a greater share of our revenue, our revenue may be less predictable or more variable than our historical revenue from a time period-based subscription pricing model. Moreover, a consumption-based subscription pricing model may ultimately result in lower total cost to our customers over time, or may cause our customers to limit usage in order to stay within the limits of their existing subscriptions, reducing overall revenue or making it more difficult for us to compete in our markets.

Our results may fluctuate significantly from period to period, which could adversely impact the value of our common stock.

Our results of operations, including our revenue, net revenue expansion rate, gross margin, profitability and cash flows, may vary significantly in the future, and period-to-period comparisons of our operating results may not be meaningful. Accordingly, our results for any particular period should not be relied upon as an indication of future performance. Our financial results may fluctuate from period to period as a result of a variety of factors, many of which are outside of our control. Fluctuation in periodic results may adversely impact the value of our common stock. Factors that may cause fluctuations in our periodic financial results include, without limitation, those listed elsewhere in this “Risk Factors” section and those listed below:

- the budgeting cycles and purchasing practices of our customers, including their tendency to purchase in the fourth quarter of our fiscal year, near the end of each quarter, and the timing of subsequent contract renewals;
- the achievement of milestones in connection with delivery of services, impacting the timing of services revenue recognition;
- subscriptions from large enterprises;
- price competition;
- our ability to attract and retain new customers;
- our ability to expand penetration within our existing customer base;
- the timing and success of new solutions by us and our competitors;
- changes in customer requirements or market needs and our ability to make corresponding changes to our business;
- changes in the competitive landscape, including consolidation among our competitors or customers;
- general economic conditions, both domestically and in our foreign markets;
- the timing and amount of certain payments and expenses, such as research and development expenses, sales commissions and stock-based compensation;
- our inability to adjust certain fixed costs and expenses, particularly in research and development, for changes in demand;

- increases or decreases in our revenue and expenses caused by fluctuations in foreign currency exchange rates, as an increasing portion of our revenue is collected and expenses are incurred and paid in currencies other than the U.S. dollar;
- the cost of and potential outcomes of existing and future claims or litigation, which could have a material adverse effect on our business;
- future accounting pronouncements and changes in our accounting policies; and
- changes in tax laws or tax regulations.

Any one of the factors above or the cumulative effect of some of the factors above may result in significant fluctuations in our operating results. This variability and unpredictability could result in our failure to meet our revenue or other operating result expectations or those of investors for a particular period. The failure to meet or exceed such expectations could have a material adverse effect on our business, results of operations and financial condition that could ultimately adversely affect our stock price.

Because we derive substantially all of our revenue from a single software platform, failure of this platform to satisfy customer demands or to achieve increased market acceptance could adversely affect our business, results of operations, financial condition and growth prospects.

We derive and expect to continue to derive substantially all of our revenue from our data management, machine learning and analytics platform. As such, the market acceptance of our platform is critical to our continued success. Demand for our platform is affected by a number of factors beyond our control, including continued market acceptance, the timing of development and release of new products by our competitors, technological change, any developments or disagreements with the open source community and growth or contraction in our market. We expect the growth and proliferation of data to lead to an increase in the data analyses demands of our customers, and our platform may not be able to scale and perform to meet those demands or may not be chosen by users for those needs. If we are unable to continue to meet customer demands or to achieve more widespread market acceptance of our platform and solutions, our business operations, financial results and growth prospects will be materially and adversely affected.

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

Companies in the software and technology industries, including some of our current and potential competitors, own large numbers of patents, copyrights, trademarks and trade secrets and frequently enter into litigation based on allegations of infringement or other violations of intellectual property rights. In addition, many of these companies have the capability to dedicate substantially greater resources to enforce their intellectual property rights and to defend claims that may be brought against them. The litigation may involve patent holding companies or other adverse patent owners that have no relevant product revenue and against which our patents may therefore provide little or no deterrence. From time-to-time, third parties, including certain other companies, have asserted and may assert patent, copyright, trademark or other intellectual property rights against us, our partners or our customers. We or our customers have received, and may in the future receive, notices that claim we have misappropriated, misused or infringed other parties' intellectual property rights, and, to the extent we gain greater market visibility, we face a higher risk of being the subject of intellectual property infringement claims, which is not uncommon with respect to the enterprise software market.

There may be third-party intellectual property rights, including issued or pending patents, that cover significant aspects of our technologies, the technologies in our platform or business methods. We may be exposed to increased risk of being the subject of intellectual property infringement claims as a result of acquisitions and our incorporation of open source software into our platform, as, among other things, we have a lower level of visibility into the development process with respect to such technology or the care taken to safeguard against infringement risks. Any intellectual property claims, with or without merit, could be very time-consuming, could be expensive to settle or litigate and could divert our management's attention and other resources. These claims could also subject us to significant liability for damages, potentially including treble damages if we are found to have willfully infringed patents or copyrights. These claims could also result in our having to stop using, distributing or supporting technology found to be in violation of a third party's rights. We might be required to seek a license for the intellectual property, which may not be available on reasonable terms or at all. Even if a license were available, we could be required to pay significant royalties, which would increase our operating expenses. As a result, we may be required to develop alternative non-infringing technology, which could require significant effort and expense. If we cannot license or develop technology for any infringing aspect of our business, we could be forced to limit or stop sales of our offerings and may be unable to compete effectively. Any of these results could adversely affect our business operations and financial results.

Third parties may also assert such claims against our customers or partners whom we typically indemnify against claims that our solutions infringe, misappropriate or otherwise violate the intellectual property rights of third parties, including in the third-party open source components included in our platform, as well as our own open source and proprietary components. As the numbers of products and competitors in our market increase and overlaps occur, claims of infringement, misappropriation and other violations of intellectual property rights may increase. Also, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited or have divulged proprietary or other confidential information.

Any failure to protect our intellectual property rights could impair our ability to protect our proprietary technology and our brand.

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop under patent and other intellectual property laws of the United States and other jurisdictions outside of the United States so that we can prevent others from using our inventions and proprietary information. If we fail to protect our intellectual property rights adequately, our competitors may gain access to our technology, and our business may be harmed. In addition, defending our intellectual property rights may entail significant expense. Any of our patents, trademarks or other intellectual property rights may be challenged by others or invalidated through administrative process or litigation. While we have patents and patent applications pending, we may be unable to obtain patent protection for the technology covered in our patent applications or the patent protection may not be obtained quickly enough to meet our business needs. In addition, our existing patents and any patents issued in the future may not provide us with competitive advantages, or may be successfully challenged by third parties.

Moreover, despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our platform or offerings or obtain and use information that we regard as proprietary. We generally enter into confidentiality or license agreements with our employees, consultants, vendors and customers, and generally limit access to and distribution of our proprietary information. However, we cannot be certain that we have entered into such agreements with all parties who may have or have had access to our confidential information or that the agreements we have entered into will not be breached. We cannot guarantee that any of the measures we have taken will prevent misappropriation of our technology. Because we may be an attractive target for cybersecurity attacks, we may have a greater risk of unauthorized access to, and misappropriation of, our proprietary information.

Furthermore, legal standards relating to the validity, enforceability and scope of protection of intellectual property rights are uncertain, and we also may face proposals to change the scope of protection for some intellectual property right. Effective patent, trademark, copyright and trade secret protection may not be available to us in every country in which our products or services are available. The laws of some countries may not be as protective of intellectual property rights as those in the United States, and mechanisms for enforcement of intellectual property rights may be inadequate. Also, our involvement in standard setting activity or the need to obtain licenses from others may require us to license our intellectual property. Accordingly, despite our efforts, we may be unable to prevent third parties from using our intellectual property.

We may be required to spend significant resources to monitor and protect our intellectual property rights and we may conclude that in at least some instances the benefits of protecting our intellectual property rights may be outweighed by the expense. We may initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Any litigation, whether or not it is resolved in our favor, could result in significant expense to us and divert the efforts of our technical and management personnel.

We do not control and may be unable to predict the future course of open source technology development, including the ongoing development of open source components used in our platform, which could reduce the market appeal of our platform and damage our reputation.

We do not control many aspects of the development of the open source technology in our platform. Different groups of open source software programmers collaborate with one another to develop the software projects in our platform. Given the disparate inputs from various developers, we cannot control entirely how an open source project develops and matures. Also, different open source projects may overlap or compete with the ones that we incorporate into our platform. The technology developed by one group for one project may become more widely used than that developed by others. If we acquire or adopt a new technology and incorporate it into our platform but a competing technology becomes more widely used or accepted, the market appeal of our platform may be reduced and that could harm our reputation, diminish our brand and result in decreased revenue.

If open source software programmers, many of whom we do not employ, or our own internal programmers do not continue to develop and enhance open source technologies, we may be unable to develop new technologies, adequately enhance our existing technologies or meet customer requirements for innovation, quality and price.

We rely to a significant degree on a number of open source software programmers, or committers and contributors, to develop and enhance components of our platform. Additionally, members of the corresponding Apache Software Foundation Project Management Committees (PMCs) many of whom are not employed by us, are primarily responsible for the oversight and evolution of the codebases of important components of the open source data management ecosystem. If the open source data management committers and contributors fail to adequately further develop and enhance open source technologies, or if the PMCs fail to oversee and guide the evolution of open source data management technologies in the manner that we believe is appropriate to maximize the market potential of our solutions, then we would have to rely on other parties, or we would need to expend additional resources, to develop and enhance our platform. We also must devote adequate resources to our own internal programmers to support their continued development and enhancement of open source technologies, and if we do not do so, we may have to turn to third parties or experience delays in developing or enhancing open source technologies. We cannot predict whether further developments and enhancements to these technologies would be available from reliable alternative sources. In either event, our development expenses could be increased and our technology release and upgrade schedules could be delayed. Delays in developing, completing or delivering new or enhanced components to our platform could cause our offerings to be less competitive, impair customer acceptance of our solutions and result in delayed or reduced revenue for our solutions.

Our software development and licensing model could be negatively impacted if the Apache License, Version 2.0 is not enforceable or is modified so as to become incompatible with other open source licenses.

Important components of our platform have been provided under the Apache License 2.0. This license states that any work of authorship licensed under it, and any derivative work thereof, may be reproduced and distributed provided that certain conditions are met. It is possible that a court would hold this license to be unenforceable or that someone could assert a claim for proprietary rights in a program developed and distributed under it. Any ruling by a court that this license is not enforceable, or that open source components of our platform may not be reproduced or distributed, may negatively impact our distribution or development of all or a portion of our solutions. In addition, at some time in the future it is possible that important components of the open source projects in our platform may be distributed under a different license or the Apache License 2.0, which governs Hadoop, Spark and other current elements of our platform, may be modified, which could, among other consequences, negatively impact our continuing development or distribution of the software code subject to the new or modified license.

Further, full utilization of our platform may depend on software, applications, hardware and services from various third parties, and these items may not be compatible with our platform and its development or available to us or our customers on commercially reasonable terms, or at all, which could harm our business.

Our use of open source software in our solutions could negatively affect our ability to sell our platform and subject us to possible litigation.

Our solutions include software covered by open source licenses, which may include, by way of example, GNU General Public License and the Apache License. We do not own all of the open source technology in our platform and the ownership of the open source technology in our platform may not be easily determinable by us. Rather, we rely on the Apache Software Foundation (ASF) as well as certain other third party open source contributors to ensure that the open source contributions to our platform are properly owned by the committers and contributors who contribute the open source technology and that such contributions do not infringe on other parties' intellectual property rights. Moreover, the terms of certain of the open source licenses have not been interpreted by United States or other courts, and there is a risk that such licenses could be construed in a manner that is incompatible with our current business model, imposing unanticipated conditions or restrictions on our ability to market our solutions. We, our customers and the ASF may have received or may in the future receive, notices that claim we have misappropriated, misused or infringed other parties' intellectual property rights, and, to the extent products based on the open source data management ecosystem gain greater market visibility, we, our customers, and the ASF, face a higher risk of being the subject of intellectual property infringement claims. In addition, we or our customers could be subject to lawsuits by parties claiming ownership of (or that different license terms apply to) what we believe to be open source software, or seeking to enforce the terms of an open source license. By the terms of certain open source licenses, we could be required to release the source code of our proprietary software, and to make our proprietary software available under open source licenses, if we combine our proprietary software with open source software in a certain manner. In the event that portions of our proprietary software are determined to be impacted by an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies and services, each of which could reduce or eliminate the value of our technologies and cause us to have to significantly alter our current business model. These claims could also result in litigation (including litigation against our customers or partners, which could result in us being obligated to indemnify our customers or partners against such litigation), require us to purchase a costly license or require us to devote additional research and development resources to change our solutions, any of which could have a negative effect on our business and operating results. In addition, if the license terms for the open source code change, we may be forced to re-engineer our solutions or incur additional costs to find alternative tools.

In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties, support, indemnity or assurance of title or controls on origin of the software. Further, some open source projects have known vulnerabilities and architectural instabilities and are provided on an "as-is" basis. Many of these risks associated with usage of open source software, such as the lack of warranties or assurances of title, cannot be eliminated, and could, if not properly addressed, negatively affect the performance of our platform and our business. In addition, we are often required to absorb these risks in our customer and partner relationships by agreeing to provide warranties, support and indemnification with respect to such third party open source software. While we have established processes intended to alleviate these risks, we cannot assure that these measures will reduce these risks.

Because our business relies on the Apache Software Foundation, our business could be harmed by the decisions made by the ASF or claims or disputes directed at or reputational harm otherwise suffered by the ASF.

Our business relies on the ASF, a non-profit corporation that supports Apache open source software projects. We do not control nor can we predict the decisions the ASF will make with respect to the further development and enhancement of open source technologies which may impact our business. For example, the reduction or elimination of support of Hadoop, Spark or other technologies by the ASF, the migration of Hadoop, Spark and other open source data management technology to an organization other than the ASF, or any other actions taken by the ASF or the Hadoop project may impact our business model. Moreover, if the ASF is subject to claims, disputes or otherwise suffers reputational harm, our business, results of operations, financial condition and growth prospects could be harmed if customers perceive our solutions to be risky or inferior to data management solutions which do not rely on the ASF for continued development and enhancement of open source technologies.

Security and privacy breaches may hurt our business.

Any security breach, including those resulting from a cybersecurity attack, or any unauthorized access, unauthorized usage, virus or similar breach or disruption could result in the loss of confidential information, damage to our reputation, early termination of our contracts, litigation, regulatory investigations or other liabilities. If our security measures or the security measures we have provided to customers are breached as a result of third-party action, employee error, malfeasance or otherwise and, as a result, someone obtains unauthorized access to our customers' confidential information, our reputation may be damaged, our business may suffer and we could incur significant liability.

Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or to implement adequate preventative measures. If an actual or perceived security breach occurs, the market perception of our security measures could be harmed and we could lose sales and customers.

In addition, many of our customers use our platform to store and process vast quantities of private and otherwise sensitive data that are critical to their businesses. They may have a greater sensitivity to security defects in our products than to defects in other, less critical, software products. An actual or perceived security breach or theft of the business-critical data of one of our customers, regardless of whether the breach is attributable to the failure of our products or services, could adversely affect the market's perception of our security products. Moreover, if a high-profile security breach occurs with respect to another data management, machine learning and analytics platform provider, our customers and potential customers may lose trust in the security of data management, machine learning and analytics platforms generally, which could adversely impact our ability to retain existing customers or attract new ones.

Real or perceived errors, failures, bugs or disruptions in our platform and solutions could adversely affect our reputation and business could be harmed.

Our platform and solutions are very complex and have contained and may contain undetected defects or errors, especially when solutions are first introduced or enhanced. In addition, our platform employs open source software and to the extent that our solutions depend upon the successful operation of open source software in conjunction with our solutions, any undetected errors or defects in this open source software could prevent the deployment or impair the functionality of our solutions, delay new solutions introductions, result in a failure of our solutions, result in liability to our customers, and injure our reputation.

If our platform is not implemented or used correctly or as intended, inadequate performance and disruption in service may result. Moreover, as we acquire companies and integrate new open source data management projects, we may encounter difficulty in incorporating the newly-obtained technologies into our platform and maintaining the quality standards that are consistent with our reputation.

Since our customers use our platform and solutions for important aspects of their business, any errors, defects, disruptions in service or other performance problems could hurt our reputation and may damage our customers' businesses. Furthermore, defects in our platform and solutions may require us to implement design changes or software updates. Any defects or errors in our platform and solutions, or the perception of such defects or errors, could result in:

- expenditure of significant financial and product development resources in efforts to analyze, correct, eliminate or work around errors or defects;
- loss of existing or potential customers or channel partners;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- delay in the development or release of new solutions or services;

- negative publicity, which will harm our reputation;
- warranty claims against us, which could result in an increase in our provision for doubtful accounts;
- an increase in collection cycles for accounts receivable or the expense and risk of litigation; and
- harm to our results of operations.

Although we have contractual protections, such as warranty disclaimers and limitation of liability provisions, in our standard terms and conditions of sale, they may not fully or effectively protect us from claims by customers, partners or other third parties. Any insurance coverage we may have may not adequately cover all claims asserted against us, or cover only a portion of such claims. In addition, even claims that ultimately are unsuccessful could result in our expenditure of funds in litigation and divert management's time and other resources.

If we are unable to hire, retain, train and motivate qualified personnel and senior management, our business could be harmed.

Our future success depends, in part, on our ability to continue to attract, integrate and retain qualified and highly skilled personnel. In particular, we are substantially dependent on the continued service of our existing engineering personnel because of the complexity of our platform and are also highly dependent on the contributions of our executive team. The loss of any key personnel could make it more difficult to manage our operations and research and development activities, reduce our employee retention and revenue and impair our ability to compete. Although we have entered into employment offer letters with our key personnel, these agreements have no specific duration and constitute at-will employment. We do not maintain key person life insurance policies on any of our employees. The loss of one or more of our key employees could seriously harm our business. If we are unable to attract, integrate, or retain the qualified and highly skilled personnel required to fulfill our current or future needs, our business, financial condition and operating results could be harmed.

Competition for highly skilled personnel is often intense, especially in the San Francisco Bay Area where we have a substantial presence and need for highly skilled personnel. We may not be successful in attracting, integrating or retaining qualified personnel to fulfill our current or future needs. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our common stock declines, it may adversely affect our ability to hire or retain highly skilled employees. In addition, we may periodically change our equity compensation practices, which may include reducing the number of employees eligible for equity awards or reducing the size of equity awards granted per employee. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be harmed.

We have experienced rapid growth in recent periods and expect our growth to continue. If we fail to effectively manage our growth, our business and operating results could be adversely affected.

We have experienced and may continue to experience rapid growth in our headcount and operations, which has placed and will continue to place significant demands on our managerial, administrative, operational, financial and other resources. For example, our employee headcount increased from 1,470 employees as of January 31, 2017 to 1,648 employees as of January 31, 2018 . This growth has placed, and any future growth will place, significant demands on our management and our operational and financial infrastructure. To manage this growth effectively, we must continue to improve our operational, financial and management systems and controls by, among other things:

- recruiting, training, integrating and retaining new employees, particularly for our sales and research and development teams;
- developing and improving our internal administrative infrastructure, particularly our financial, operational, compliance, recordkeeping, communications and other internal systems;
- managing our international operations and the risks associated therewith;

- maintaining high levels of satisfaction with our platform among our customers; and
- effectively managing expenses related to any future growth.

If we fail to manage our growth, or if we fail to implement improvements or maintain effective internal controls, our costs and expenses may increase more than we plan and our ability to expand our customer base, enhance our platform, develop new solutions, expand penetration within existing customers, respond to competitive pressures or otherwise execute our business plan, our business and operating results could be adversely affected.

Because we recognize subscription revenue from our platform over the subscription term, downturns or upturns in new sales and renewals will not be immediately reflected in our operating results.

We generally recognize subscription revenue ratably over the term of the subscription period. As a result, most of the revenue we report in each quarter are derived from the recognition of deferred revenue relating to subscriptions entered into during previous quarters. Consequently, a decline in new or renewed subscriptions, or a reduction in expansion rates, in any single quarter could have only a small impact on our revenue results during that quarter or subsequent period. Such a decline or deceleration, however, will negatively affect our revenue or revenue growth rates in future quarters. Accordingly, the effect of these changes or events may not be fully reflected in our results of operations until future periods. Given the ratable nature of our revenue recognition, our subscription model also makes it difficult for us to rapidly increase our revenue through additional sales in any period. We may be unable to adjust our cost structure to reflect the changes in revenue. In addition, a significant majority of our costs are expensed as incurred, while revenue is generally recognized over the life of the customer agreement. As a result, increased growth in the number of our customers could result in our recognition of more costs than revenue in the earlier periods of the terms of our agreements.

Our revenue growth depends in part on the success of our strategic relationships with third parties and their continued performance.

We seek to grow our partner ecosystem as a way to grow our business. To grow our business, we anticipate that we will continue to establish and maintain relationships with third parties, such as resellers, OEMs, system integrators, independent software and hardware vendors and platform and cloud service providers. For example, in 2014, we entered into a strategic collaboration and optimization agreement with Intel. In addition, we work closely with select vendors to design solutions to specifically address the needs of certain industry verticals or use cases within those verticals, which we refer to as Partner Solutions. As our agreements with strategic partners terminate or expire, we may be unable to renew or replace these agreements on comparable terms, or at all. Moreover, we cannot guarantee that the companies with which we have strategic relationships will continue to devote the resources necessary to expand our reach, increase our distribution and increase the number of Partner Solutions and associated use cases. In addition, customer satisfaction with Partner Solutions may be less than anticipated, negatively impacting anticipated revenue growth and results of operations. Further, some of our strategic partners offer competing products and services or also work with our competitors. As a result of these factors, many of the companies with which we have strategic alliances may choose to pursue alternative technologies and develop alternative products and services in addition to or in lieu of our platform, either on their own or in collaboration with others, including our competitors. If we are unsuccessful in establishing or maintaining our relationships with third parties, our ability to compete in the marketplace or to grow our revenue could be impaired and our operating results may suffer. Even if we are successful in establishing and maintaining these relationships with third parties, we cannot assure you that these relationships will result in increased customer usage of our platform or increased revenue.

The sum of our revenue and changes in deferred revenue may not be an accurate indicator of business activity within a period.

Investors or analysts sometimes look to the sum of our revenue and changes in deferred revenue as an indicator of business activity in a period for businesses such as ours, sometimes referred to as “estimated billings.” However, these measures may significantly differ from underlying business activity for a number of reasons including:

- a relatively large number of transactions occur at the end of the quarter. Invoicing of those transactions may or may not occur before the end of the quarter based on a number of factors including receipt of information from the customer, volume of transactions and holidays. A shift of a few days has little economic impact on our business, but will shift deferred revenue from one period into the next;
- multi-year upfront billings may distort trends;
- subscriptions that have deferred start dates; and
- services that are invoiced upon delivery.

Accordingly, we do not believe that estimated billings is an accurate indicator of future revenue for any given period of time. However, many companies that provide subscriptions report changes in estimated billings as a key operating or financial metric, and it is possible that analysts or investors may view this metric as important. Thus, any changes in our estimated billings could adversely affect the market price of our common stock.

If our new components and enhancements to our platform do not achieve sufficient market acceptance, our financial results and competitive position will suffer.

We spend substantial amounts of time and money to research and develop new components and enhancements of our platforms to incorporate additional features, improve functionality or other enhancements in order to meet our customers' rapidly evolving demands. When we develop a new component or enhancement to our platform, whether open source or proprietary, we typically incur expenses and expend resources upfront to develop, market and promote the new component. Therefore, when we develop and introduce new components or enhancements to our platform, they must achieve high levels of market acceptance in order to justify the amount of our investment in developing and bringing them to market. For example, if our new file system based on the open source Kudu project does not garner widespread market adoption and implementation, our growth prospects, future financial results and competitive position could suffer.

Our new components or enhancements to our platform and changes to our platform could fail to attain sufficient market acceptance for many reasons, including:

- our failure to predict market demand accurately in terms of platform functionality, including curating new open source projects, and to supply a platform that meets this demand in a timely fashion;
- delays in releasing to the market our new components or enhancements to our platform to the market;
- defects, errors or failures;
- complexity in the implementation or utilization of the new components and enhancements;
- negative publicity about their performance or effectiveness;
- introduction or anticipated introduction of competing platforms by our competitors;
- poor business conditions for our end-customers, causing them to delay IT purchases; and
- reluctance of customers to purchase platforms incorporating open source software or to purchase hybrid platforms.

If our new components or enhancements and changes do not achieve adequate acceptance in the market, our competitive position will be impaired, and our revenue will be diminished. The adverse effect on our financial results may be particularly acute because of the significant research, development, marketing, sales and other expenses we will have incurred in connection with the new solutions or enhancements.

If we do not effectively hire, retain, train and oversee our direct sales force, we may be unable to add new customers or increase sales to our existing customers, and our business may be adversely affected.

We continue to be substantially dependent on our direct sales force to obtain new customers and increase sales with existing customers. There is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training and retaining sufficient numbers of sales personnel to support our growth, particularly in international markets. In addition, a large percentage of our sales force is new to our company. New hires require significant training and may take significant time before they achieve full productivity. Our recent hires and planned hires may not become productive as quickly as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. In addition, growth of our direct sales force leads to increasing difficulty and complexity in its organization, management and leadership, at which we may prove unsuccessful. If we are unable to hire and train a sufficient number of effective sales personnel, we are ineffective at overseeing a growing sales force, or the sales personnel we hire are otherwise unsuccessful in obtaining new customers or increasing sales to our existing customer base, our business will be adversely affected.

We may acquire or invest in companies and technologies, which may divert our management's attention, and result in additional dilution to our stockholders. We may be unable to integrate acquired businesses and technologies successfully or achieve the expected benefits of such acquisitions or investments.

As part of our business strategy, we have acquired companies in the past and may evaluate and consider potential strategic transactions, including acquisitions of, or investments in, businesses, technologies, services, products and other assets in the future. For example, we acquired Gazzang, Inc. in June 2014, Xplain.io, Inc. in February 2015, and Fast Forward Labs in September 2017. We also may enter into relationships with other businesses to expand our solutions or our ability to provide services. An acquisition, investment or business relationship may result in unforeseen operating difficulties and expenditures. In particular, we may encounter difficulties assimilating or integrating the businesses, technologies, products, personnel or operations of the acquired companies, particularly if the key personnel of the acquired company choose not to work for us, their technology is not easily adapted to work with ours, or we have difficulty retaining the customers of any acquired business due to changes in ownership, management or otherwise. Negotiating these transactions can be time-consuming, difficult and expensive, and our ability to close these transactions may often be subject to conditions or approvals that are beyond our control. Consequently, these transactions, even if undertaken and announced, may not close.

Even if we are able to complete acquisitions or enter into alliances and joint ventures that we believe will be successful, such transactions are inherently risky. Acquisitions involve many risks, including the following:

- an acquisition may negatively impact our results of operations because it:
  - may require us to incur charges, including integration and restructuring costs, both one-time and ongoing, as well as substantial debt or liabilities, including unanticipated and unknown liabilities,
  - may cause adverse tax consequences, substantial depreciation or deferred compensation charges,
  - may result in acquired in-process research and development expenses or in the future may require the amortization, write-down or impairment of amounts related to deferred compensation, goodwill and other intangible assets, or
  - may not generate sufficient financial returns for us to offset our acquisition costs;
- we may encounter difficulties or unforeseen expenditures in integrating the business, technologies, products, personnel or operations of any company that we acquire, particularly if key personnel of the acquired company decide not to work for us;
- an acquisition and integration process is complex, expensive and time consuming, and may disrupt our ongoing business, divert resources, increase our expenses and distract our management;

- an acquisition may result in a delay or reduction of customer purchases for both us and the company acquired due to customer uncertainty about continuity and effectiveness of service from either company;
- an acquisition may result in increased regulatory and compliance requirements;
- an acquisition may result in increased uncertainty if we enter into businesses, markets or business models in which we have limited or no prior experience and in which competitors have stronger market positions;
- we may encounter difficulties in maintaining the key business relationships and the reputations of the businesses we acquire, and we may be dependent on unfamiliar affiliates and partners of the companies we acquire;
- we mail fail to maintain sufficient controls, policies and procedures, including integrating any acquired business into our control environment;
- we may fail to achieve anticipated synergies, including with respect to complementary software or services;
- we may obtain unanticipated or unknown liabilities, including intellectual property or other claims, or become exposed to unanticipated risks in connection with any acquisition; and
- an acquisition may involve the entry into geographic or business markets in which we have little or no prior experience.

If we are unable to address these difficulties and challenges or other problems encountered in connection with any future acquisition or investment, we might not realize the anticipated benefits of that acquisition or investment, we might incur unanticipated liabilities or we might otherwise suffer harm to our business generally.

To the extent we pay the consideration for any future acquisitions or investments in cash, the payment would reduce the amount of cash available to us for other purposes. Future acquisitions or investments could also result in dilutive issuances of our equity securities or the incurrence of debt, contingent liabilities, amortization expenses, or impairment charges against goodwill on our balance sheet, any of which could harm our financial condition and negatively impact our stockholders.

As we expand internationally, our business will become more susceptible to risks associated with international operations.

We have recently expanded internationally, and intend to continue such international expansion. For example, we sell the various editions of our platform through our direct sales force, which is comprised of inside sales and field sales personnel, and is located in a variety of geographic regions, including the United States, Europe and Asia, and have customers located in over 80 countries as of January 31, 2018 . We intend to continue to expand internationally.

Conducting international operations subjects us to risks that we have not generally faced in the United States. These risks include:

- challenges caused by distance, language, cultural and ethical differences and the competitive environment;
- heightened risks of unethical, unfair or corrupt business practices, actual or claimed, in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of, and irregularities in, financial statements;
- foreign exchange restrictions and fluctuations in currency exchange rates, including that, because a majority of our international contracts are denominated in U.S. dollars, an increase in the strength of the U.S. dollar may make doing business with us less appealing to a non-U.S. dollar denominated customer;
- application of multiple and conflicting laws and regulations, including complications due to unexpected changes in foreign laws and regulatory requirements;

- risks associated with trade restrictions and foreign import requirements, including the importation, certification and localization of our solutions required in foreign countries, as well as changes in trade, tariffs, restrictions or requirements;
- new and different sources of competition;
- potentially different pricing environments, longer sales cycles and longer accounts receivable payment cycles and collections issues;
- management communication and integration problems resulting from cultural differences and geographic dispersion;
- potentially adverse tax consequences, including multiple and possibly overlapping tax structures, the complexities of foreign value-added tax systems, restrictions on the repatriation of earnings and changes in tax rates;
- greater difficulty in enforcing contracts, accounts receivable collection and longer collection periods;
- the uncertainty and limitation of protection for intellectual property rights in some countries;
- increased financial accounting and reporting burdens and complexities;
- lack of familiarity with locals laws, customs and practices, and laws and business practices favoring local competitors or partners; and
- political, social and economic instability abroad, terrorist attacks and security concerns in general.

The occurrence of any one of these risks could harm our international business and, consequently, our results of operations. Additionally, operating in international markets requires significant management attention and financial resources. We cannot be certain that the investment and additional resources required to operate in other countries will produce desired levels of revenue or profitability.

Some of our business partners also have international operations and are subject to the risks described above. Even if we are able to successfully manage the risks of international operations, our business may be adversely affected if our business partners are not able to successfully manage these risks.

Our business in countries with a history of corruption and transactions with foreign governments increase the risks associated with our international activities.

As we operate and sell internationally, we are subject to the Foreign Corrupt Practices Act (FCPA), the United Kingdom Bribery Act of 2010, or the UK Bribery Act, and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties for the purpose of obtaining or retaining business. We have operations, deal with and make sales to governmental customers in countries known to experience corruption, particularly certain emerging countries in Africa, East Asia, Eastern Europe, South America and the Middle East. Our activities in these countries create the risk of unauthorized payments or offers of payments by one of our employees, consultants, sales agents or channel partners that could be in violation of various anti-corruption laws, even though these parties may not be under our control. While we have implemented policies and controls intended to prevent these practices by our employees, consultants, sales agents and channel partners, our existing safeguards and any future improvements may prove to be less than effective, and our employees, consultants, sales agents or channel partners may engage in conduct for which we might be held responsible. Violations of the FCPA, the UK Bribery Act and other laws may result in severe criminal or civil sanctions, including suspension or debarment from U.S. government contracting, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition.

We are subject to governmental export control, sanctions and import laws and regulations that could subject us to liability or impair our ability to compete in international markets.

Because we incorporate encryption functionality into our platform (including any products comprising the platform), we are subject to certain U.S. export control laws that apply to encryption items. As such, our platform may be exported outside the United States through an export license exception; an export license is required to certain countries, end-users and end-uses. If we were to fail to comply with such U.S. export controls laws, U.S. customs regulations, U.S. economic sanctions, or other similar laws, we could be subject to both civil and criminal penalties, including substantial fines, possible incarceration for employees and managers for willful violations, and the possible loss of our export or import privileges. Obtaining the necessary export license for a particular sale or offering may not be possible and may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, U.S. export control laws and economic sanctions prohibit the export of products to certain U.S. embargoed or sanctioned countries, governments and persons, as well as for prohibited end-uses. Monitoring and ensuring compliance with these complex U.S. export control laws is particularly challenging because our platform and related services are widely distributed throughout the world and are available for download without registration. Even though we take precautions to ensure that we and our reseller partners comply with all relevant export control laws and regulations, any failure by us or our reseller partners to comply with such laws and regulations could have negative consequences for us, including reputational harm, government investigations and penalties.

In addition, various countries regulate the import of certain encryption technology, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our platform or could limit our end-customers' ability to implement our products in those countries. Changes in our products or changes in export and import regulations in such countries may create delays in the introduction of our platform into international markets, prevent our end-customers with international operations from deploying our products globally or, in some cases, prevent or delay the export or import of our platform to certain countries, governments or persons altogether. Any change in export or import laws or regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing export, import or sanctions laws or regulations, or change in the countries, governments, persons, or technologies targeted by such export, import or sanctions laws or regulations, could result in decreased use of our platform by, or in our decreased ability to export or sell our platform to, existing or potential end-customers with international operations. Any decreased use of our platform or limitation on our ability to export to or sell our platform in international markets could adversely affect our business, financial condition and operating results.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our operating results.

Our sales contracts are primarily denominated in U.S. dollars, and therefore substantially all of our revenue is not subject to foreign currency risk. However, a strengthening of the U.S. dollar could increase the real cost of our platform to our customers outside of the United States, which could adversely affect our operating results. In addition, an increasing portion of our operating expenses is incurred and an increasing portion of our assets is held outside the United States. These operating expenses and assets are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates. If we are not able to successfully hedge against the risks associated with currency fluctuations, our operating results could be adversely affected.

Our failure to raise additional capital could reduce our ability to compete and could harm our business.

We expect that our existing cash and cash equivalents will be sufficient to meet our anticipated cash needs for the foreseeable future. However if we change our business strategy, we may need to raise additional funds in the future, and we may not be able to obtain additional debt or equity financing on favorable terms, if at all. If we raise additional equity financing, our stockholders may experience significant dilution of their ownership interests and the per share value of our common stock could decline. Furthermore, if we engage in debt financing, the holders of debt would have priority over the holders of common stock, and we may be required to accept terms that restrict our ability to incur additional indebtedness. We may also be required to take other actions that would otherwise be in the interests of the debt holders and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition.

We are exposed to the credit risk of some of our resellers and customers and to credit exposure in weakened markets, which could result in material losses.

Most of our sales are on an unsecured basis. Although we seek to mitigate these risks, we cannot be certain that these efforts will be effective in reducing our credit risks, especially as we expand our business internationally. If we are unable to adequately control these risks, our business, results of operations and financial condition could be harmed.

Federal, state, foreign government and industry regulations, as well as self-regulation related to privacy and data security concerns, pose the threat of lawsuits and other liability.

We collect and utilize demographic and other information, including personally identifiable information, from and about our employees and our existing and potential customers and partners. Such information may be collected from our customers and partners when they visit our website or through their use of our products and interactions with our company and employees such as when signing up for certain services, registering for training seminars, participating in a survey, participating in polls or signing up to receive e-mail newsletters.

A wide variety of domestic and international laws and regulations (e.g., the General Data Protection Regulation) apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data. These data protection and privacy-related laws and regulations are evolving and may result in regulatory and public scrutiny and escalating levels of enforcement and sanctions. Our failure to comply with applicable laws and regulations, or to protect such data, could result in enforcement action against us, including fines, claims for damages by customers and other affected individuals, damage to our reputation and loss of goodwill (both in relation to existing customers and prospective customers), any of which could have a material adverse effect on our operations, financial performance and business. Evolving and changing definitions of personal data and personal information within the European Union, the United States, and elsewhere may limit or inhibit our ability to operate or expand our business. Even the perception of privacy concerns, whether or not valid, may harm our reputation, inhibit adoption of our products by current and future customers or adversely impact our ability to attract and retain workforce talent.

Loss, retention or misuse of certain information and alleged violations of laws and regulations relating to privacy and data security, and any relevant claims, may expose us to potential liability and may require us to expend significant resources on data security and in responding to and defending such allegations and claims. In addition, future laws, regulations, standards and other obligations, and changes in the interpretation of existing laws, regulations, standards and other obligations could impair our customers' ability to collect, use or disclose data relating to individuals, which could decrease demand for our platform, increase our costs and impair our ability to maintain and grow our customer base and increase our revenue.

A portion of our revenue is generated by sales to government entities and heavily regulated organizations, which are subject to a number of challenges and risks.

A portion of our sales are to governmental entities. Additionally, many of our current and prospective customers, such as those in the financial services and health care industries, are highly regulated and may be required to comply with more stringent regulations in connection with subscribing to and deploying our platform. Selling to these entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that these efforts will result in a sale. Government and highly regulated entities often require contract terms that differ from our standard arrangements and impose compliance requirements that are complicated, require preferential pricing or "most favored nation" terms and conditions, or are otherwise time consuming and expensive to satisfy. If we undertake to meet special standards or requirements and do not meet them, we could be subject to increased liability from our customers or regulators. Even if we do meet them, the additional costs associated with providing our services to government and highly regulated customers could harm our margins. Moreover, changes in the underlying regulatory conditions that affect these types of customers could harm our ability to efficiently provide our services to them and to grow or maintain our customer base.

Additionally, government certification requirements for platforms like ours may change and in doing so restrict our ability to sell into certain government sectors until we have attained the revised certification. Government demand and payment for our solutions may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our solutions. Additionally, government entities routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government entity refusing to continue buying our solutions, a reduction of revenue, fines or civil or criminal liability if the audit uncovers improper or illegal activities, which could adversely impact our operating results. Furthermore, engaging in sales activities to foreign governments introduces additional compliance risks specific to the FCPA, the UK Bribery Act and other similar statutory requirements prohibiting bribery and corruption in the jurisdictions in which we operate.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain executive management and qualified board members.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, the rules and regulations of the listing standards of the New York Stock Exchange and other applicable securities rules and regulations. Compliance with these rules and regulations increases our legal and financial compliance costs, makes some activities more difficult, time-consuming or costly and increases demand on our systems and resources, particularly after we are no longer an "emerging growth company." The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results. 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, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could adversely affect our business and operating results. Although we have already hired additional employees to comply with these requirements, we may need to hire more employees in the future or engage outside consultants, which will increase our costs and expenses.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be adversely affected.

However, for as long as we remain an "emerging growth company" as defined in the Jumpstart our Business Startups Act of 2012, or the JOBS Act, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We may take advantage of these reporting exemptions until we are no longer an "emerging growth company."

Further, the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act of 1933, as amended, or Securities Act, registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. We have elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult because of the potential differences in accounting standards used.

We will remain an "emerging growth company" for up to five years. However, among other factors, if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any July 31 after our first annual report, we would cease to be an "emerging growth company" as of the following January 31.

These new rules and regulations will make it more expensive for us, as a public company, to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

As a result of disclosure of information in this Annual Report and in filings required of a public company, our business and financial condition are more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and operating results could be adversely affected, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and adversely affect our business and operating results.

If we fail to maintain an effective system of internal controls, 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 Exchange Act, the Sarbanes-Oxley Act, and the rules and regulations of the listing standards of the New York Stock Exchange. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting, and financial compliance costs, make some activities more difficult, time-consuming, and costly, and place significant strain on our personnel, systems, and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the Securities and Exchange Commission (SEC) is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. We are also continuing to improve our 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.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, weaknesses in our disclosure controls and internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls or any difficulties encountered in their implementation or improvement could harm our operating results or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which could 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 applicable stock exchange. We are not currently required to comply with the SEC rules that implement Section 404 of the Sarbanes-Oxley Act and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. As a public company, we are required to provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second annual report on Form 10-K.

Our independent registered public accounting firm is not required to formally attest to the effectiveness of our internal control over financial reporting until after we are no longer an "emerging growth company" as defined in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed, or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting could have a material and adverse effect on our business and operating results and could cause a decline in the price of our common stock.

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

We are an "emerging growth company," as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved and exemptions from complying with new or revised financial accounting standards until private companies are required to comply with the new or revised accounting standards. We may take advantage of these exemptions for so long as we are an "emerging growth company," which could be as long as five years following the effectiveness of our initial public offering but we expect to not be an "emerging growth company" sooner. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and the price of our common stock may be more volatile.

Our financial results may be adversely affected by changes in accounting principles applicable to us.

Generally accepted accounting principles in the United States (GAAP) are subject to interpretation by the Financial Accounting Standards Board (FASB), the SEC, and other various bodies formed to promulgate and interpret appropriate accounting principles. For example, in May 2014, the FASB issued accounting standards update No. 2014-09 (Topic 606), Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under GAAP. We will be required to implement this guidance in fiscal 2020. We have not selected a transition method and continue to evaluate what effect, if any, the amendments and transition alternatives could have on our financial position and results of operations. Regardless of the transition method selected, application of Topic 606 may significantly impact the amount and timing of revenue recognition, such as recognizing revenue from existing contracts in periods other than when historically reported under existing GAAP or the revenue recognized under existing GAAP could be eliminated as part of the effect of adoption. Further, adoption of Topic 606 could result in changes to the periods when revenue is recognized in the future compared with management's current expectations under existing GAAP. In addition, Topic 606 may significantly change the timing of when expense recognition will occur related to costs to obtain and fulfill customer contracts. While the adoption of Topic 606 does not change the cash flows received from our contracts with customers, the adoption of Topic 606 could have a material adverse effect on our financial position or results of operations.

Changes in our provision for income taxes or adverse outcomes resulting from examination of our income tax returns could adversely affect our results.

We are subject to income taxation in the United States and numerous foreign jurisdictions. Determining our provision for income taxes requires significant management judgment. In addition, our provision for income taxes is subject to volatility and could be adversely affected by many factors, including, among other things, changes to our operating or holding structure, changes in the amounts of earnings in jurisdictions with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities and changes in tax laws. We could be subject to tax examinations in various jurisdictions. Tax authorities may disagree with our use of research and development tax credits, intercompany charges, cross-jurisdictional transfer pricing or other matters and assess additional taxes. While we regularly assess the likely outcomes of these examinations to determine the adequacy of our provision for income taxes, there can be no assurance that the outcomes of such examinations will not have a material impact on our operating results and cash flows.

In addition, we may be subject to the examination of our income tax returns by the U.S. Internal Revenue Service and other tax authorities. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. There can be no assurance that the outcomes from these continuous examinations will not have an adverse effect on our results of operations.

The enactment of legislation implementing changes in the United States of taxation of international business activities or the adoption of other tax reform policies could materially impact our financial position and results of operations.

Recent changes to United States tax laws, including limitations on the ability of taxpayers to claim and utilize foreign tax credits and the deferral of certain tax deductions until earnings outside of the United States are repatriated to the United States, as well as changes to United States tax laws that may be enacted in the future, could impact the tax treatment of our foreign earnings. Due to expansion of our international business activities, any changes in the United States taxation of such activities may increase our worldwide effective tax rate and adversely affect our financial position and results of operations.

Uncertainties in the interpretation and application of the 2017 Tax Cuts and Jobs Act could materially affect our tax obligations and effective tax rate.

The 2017 Tax Cuts and Jobs Act (the Tax Act) was enacted on December 22, 2017, and significantly changes how the U.S. imposes income tax on multinational corporations. The U.S. Department of Treasury has broad authority to issue regulations and interpretative guidance that may significantly impact how we will apply the law and affect our results of operations in the period issued.

The Tax Act requires complex computations not previously provided in U.S. tax law. As such, the application of accounting guidance for such items is currently uncertain. Further, compliance with the Tax Act and the accounting for such provisions require accumulation of information not previously required or regularly produced. As a result, we have provided a provisional estimate of the effect of the Tax Act in our financial statements. As additional regulatory guidance is issued by the applicable taxing authorities, accounting treatment is clarified, we perform additional analysis on the application of the law, and we refine estimates in calculating the impact, our final analysis, which will be recorded in the period completed, may be different from our current provisional amounts, which could materially affect our tax obligations and effective tax rate.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the United States Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses (NOLs) to offset future taxable income. If our existing NOLs are subject to limitations arising from previous ownership changes, our ability to utilize NOLs could be limited by Section 382 of the Code. For example, we recently performed an analysis to determine whether an ownership change had occurred since our inception which identified two historical ownership changes. While these limitations did not result in a material restriction on the use of our NOLs, future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. There is also a risk that due to regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to offset future income tax liabilities. For these reasons, we may not be able to utilize a portion of the NOLs reflected on our balance sheet, even if we attain profitability.

We have business and customer relationships with certain entities who are stockholders or are affiliated with our directors, or both, and conflicts of interest may arise because of such relationships.

Some of our customers and other business partners are affiliated with certain of our directors or hold shares of our capital stock, or both. For example, we have entered into strategic relationships and/or customer relationships with Intel Corporation, or Intel. Our director, Rose Schooler, is an employee of Intel, and Intel is a stockholder. We believe that the transactions and agreements that we have entered into with related parties are on terms that are at least as favorable as could reasonably have been obtained at such time from third parties. However, these relationships could create, or appear to create, potential conflicts of interest when our board of directors is faced with decisions that could have different implications for us and these other parties or their affiliates. In addition, conflicts of interest may arise between us and these other parties and their affiliates. The appearance of conflicts, even if such conflicts do not materialize, might adversely affect the public's perception of us, as well as our relationship with other companies and our ability to enter into new relationships in the future, including with competitors of such related parties, which could harm our business and results of operations.

Adverse economic conditions may negatively impact our business.

Our business depends on the overall demand for information technology and on the economic health of our current and prospective customers. Any significant weakening of the economy in the United States or Europe and of the global economy, more limited availability of credit, a reduction in business confidence and activity, decreased government spending, economic uncertainty and other difficulties may affect one or more of the sectors or countries in which we sell our applications. Global economic and political uncertainty may cause some of our customers or potential customers to curtail spending, and may ultimately result in new regulatory and cost challenges to our international operations. In addition, a strong dollar could reduce demand for our products in countries with relatively weaker currencies. These adverse conditions could result in reductions in sales of our applications, longer sales cycles, reductions in subscription duration and value, slower adoption of new technologies and increased price competition. Any of these events could have an adverse effect on our business, operating results and financial position.

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 or a flood, or a significant power outage could have a material adverse impact on our business, financial condition and results of operations. Our corporate headquarters are located in Palo Alto, California, in a region known for seismic activity, and we have significant offices in San Francisco, New York City and Austin in the United States and internationally in Budapest, London and Singapore. Further, if a natural disaster or terrorist event occurs in a region from which we derive a significant portion of our revenue, customers in that region may delay or forego purchases of our products, which may materially and adversely impact our results of operations for a particular period. For example, the west coast of the United States contains active earthquake zones and the eastern seaboard is subject to seasonal hurricanes while New York and the United Kingdom have suffered significant terrorist attacks. Additionally, we rely on our network and third-party infrastructure and enterprise applications, internal technology systems and our website for our development, marketing, finance, customer support, operational support, hosted services and sales activities. In the event of a major earthquake, hurricane or catastrophic event such as fire, power loss, floods, telecommunications failure, cyber-attack, war or terrorist attack, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our development of solutions, lengthy interruptions in our services, breaches of data security and loss of critical data, all of which could have an adverse effect on our operating results. All of the aforementioned risks may be augmented if the business continuity plans for us and our service providers prove to be inadequate. To the extent that any of the above results in delays or cancellations of customer orders, or the delay in the deployment of our products, our business, financial condition and results of operations could be adversely affected.

Risks Related to Ownership of Our Common Stock

The stock price of our common stock has been, and may continue to be, volatile or may decline regardless of our operating performance.

The market price for our common stock has been, and may continue to be, volatile. Since shares of our common stock were sold in our initial public offering in April 2017 at a price of $15.00 per share, our stock price has ranged from $14.50 to $23.35, through January 31, 2018 . The market price of our common stock may continue to fluctuate significantly in response to numerous factors, many of which are beyond our control, including the factors included in this Risk Factors section as well as:

- overall performance of the equity markets;
- actual or anticipated fluctuations in our operating results or net revenue expansion rate;
- changes in the financial projections we may provide to the public or our failure to meet these projections;
- failure of securities analysts to initiate or maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors, even if we meet our own projections;
- recruitment or departure of key personnel;
- the economy as a whole and market conditions in our industry;
- rumors and market speculation involving us or other companies in our industry;
- announcements by us or our competitors of significant technical innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- actual or anticipated developments in our business or our competitors' businesses or the competitive landscape generally;
- developments or disputes concerning our intellectual property or our offerings, or third-party proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- lawsuits threatened or filed against us;
- other events or factors, including those resulting from war, incidents of terrorism, or responses to these events;
- the expiration of contractual lock-up or market standoff agreements; and
- sales of shares of our common stock by us or our stockholders.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. Stock prices of many companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business, and adversely affect our business.

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

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts initiate research with an unfavorable rating or downgrade our common stock, provide a more favorable recommendation about our competitors, publish inaccurate or unfavorable research about our business or cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our common stock price and trading volume to decline.

Our directors, executive officers and principal stockholders continue to have substantial control over us, which could limit your ability to influence the outcome of key transactions, including a change of control.

Our directors, executive officers and our stockholders who own greater than 5% of our outstanding common stock, together with their affiliates, beneficially own, in the aggregate, approximately 57.8% of our outstanding common stock, based on the number shares outstanding as of March 31, 2018 As a result, these stockholders, if acting together, have the ability to influence or control matters requiring approval by our stockholders, including the election of directors and the approval of mergers, acquisitions or other extraordinary transactions. In addition, these stockholders, acting together, have the ability to control the management and affairs of our company. They may also have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. This concentration of ownership may have the effect of delaying, preventing or deterring a change of control of our company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might ultimately affect the market price of our common stock.

Intel holds approximately 17.7% of our outstanding common stock, based on the number shares outstanding as of March 31, 2018. As such, Intel could have considerable influence over matters such as approving a potential acquisition of us. Intel's investment in and position in our company could also discourage others from pursuing any potential acquisition of us, which could have the effect of depriving the holders of our common stock of the opportunity to sell their shares at a premium over the prevailing market price.

We do not intend to pay dividends for the foreseeable future.

We have never declared or paid any cash dividends on our common stock and do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

Defensive measures in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

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

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

- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, our chief executive officer, our lead director, or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66 $^{2}/_{3}$% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the issuance of preferred stock and management of our business or our amended and restated bylaws, which may inhibit the ability of an acquirer to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt;
- the requirement that in order for a stockholder to be eligible to propose a nomination or other business to be considered at an annual meeting of our stockholders, such stockholder must have continuously beneficially owned at least 1% of our outstanding common stock for a period of one year before giving such notice, which may discourage, delay or deter stockholders or a potential acquirer from conducting a solicitation of proxies to elect the their own slate of directors or otherwise attempting to obtain control of us or influence over our business; and
- advance notice procedures with which stockholders must comply in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage, delay or deter stockholders or a potential acquirer from conducting a solicitation of proxies to elect the their own slate of directors or otherwise attempting to obtain control of us or influence over our business.

In addition, our restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our restated certificate of incorporation, or our restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

In addition, because we are incorporated in Delaware, we are governed by the provisions of the anti-takeover provisions of the Delaware General Corporation Law, which may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. Although we believe these provisions collectively provide for an opportunity to obtain greater value for stockholders by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer rejected by our board was considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We currently lease approximately 225,000 square feet of space for our current corporate headquarters in Palo Alto, California under a lease agreement that expires in 2027 with an option to renew for an additional 84 months. In addition, we entered into a five year sublease agreement with a third party subtenant for approximately 105,000 square feet of this space. We also lease 54,000 square feet of space in Palo Alto, California, and we entered into a four-year sublease agreement with a third party subtenant for approximately 54,000 square feet of this space. We have additional offices in San Francisco, New York City and Austin in the United States and internationally in Budapest, London and Singapore under leases that expire at varying times between 2018 and 2024. We believe that our current facilities are sufficient for our current needs. We intend to add new facilities or expand existing facilities as we add staff or expand our geographic markets, and we believe that suitable additional space will be available as needed to accommodate any such expansion of our organization.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we are a party to or act as an indemnitor to our customers or partners on various litigation matters, and we or our customers or partners are subject to claims that arise in the ordinary course of business. In addition, we or our customers or partners have received, and may in the future receive, various types of claims including potential claims from third parties asserting, among other things, infringement of their intellectual property rights.

Future litigation may be necessary to defend ourselves, or our customers or partners on indemnity matters, by determining the scope, enforceability and validity of third-party proprietary rights or to establish our proprietary rights. Further, the ultimate outcome of any litigation is uncertain and, regardless of outcome, litigation can have an adverse impact on us because of defense costs, potential negative publicity, diversion of management resources and other factors. While we are not aware of pending legal matters or claims, individually or in the aggregate, that are expected to have a material adverse impact on our business, consolidated financial position, results of operations or cash flows, our analysis of whether a claim may proceed to litigation cannot be predicted with certainty, nor can the results of litigation be predicted with certainty. Accordingly, there can be no assurance that existing or future legal proceedings arising in the ordinary course of business or otherwise will not have a material adverse effect on our business, consolidated financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information for Common Stock

Our common stock has been listed on the New York Stock Exchange under the symbol "CLDR" since April 28, 2017. Prior to that date, there was no public trading market for our common stock.

The following table sets forth for the periods indicated the high and low sale prices per share of our common stock as reported on the New York Stock Exchange:

	High	Low
Fiscal Year 2018		
First Fiscal Quarter (from April 28, 2017)	$19.33	$17.73
Second Fiscal Quarter (ended July 31, 2017)	23.35	15.40
Third Fiscal Quarter (ended October 31, 2017)	22.40	14.50
Fourth Fiscal Quarter (ended January 31, 2018)	19.11	14.85

Holders

As of March 31, 2018, we had 191 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock, and we do not currently intend to pay any cash dividends for the foreseeable future. We expect to retain future earnings, if any, to fund the development and growth of our business. Any future determination to pay dividends on our common stock will be at the discretion of our board of directors and will depend upon, among other factors, our financial condition, operating results, current and anticipated cash needs, plans for expansion and other factors that our board of directors may deem relevant.

Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item will be included in our Proxy Statement for the 2018 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended January 31, 2018, and is incorporated herein by reference.

Use of Proceeds

On April 27, 2017, the SEC declared our registration statement on Form S-1 (File No. 333-217071) for our IPO effective. There have been no material changes in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on April 28, 2017 pursuant to Rule 424(b)(4).

Unregistered Sales of Equity Securities

We had no unregistered sales of our securities in fiscal year 2018 not previously reported.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers.

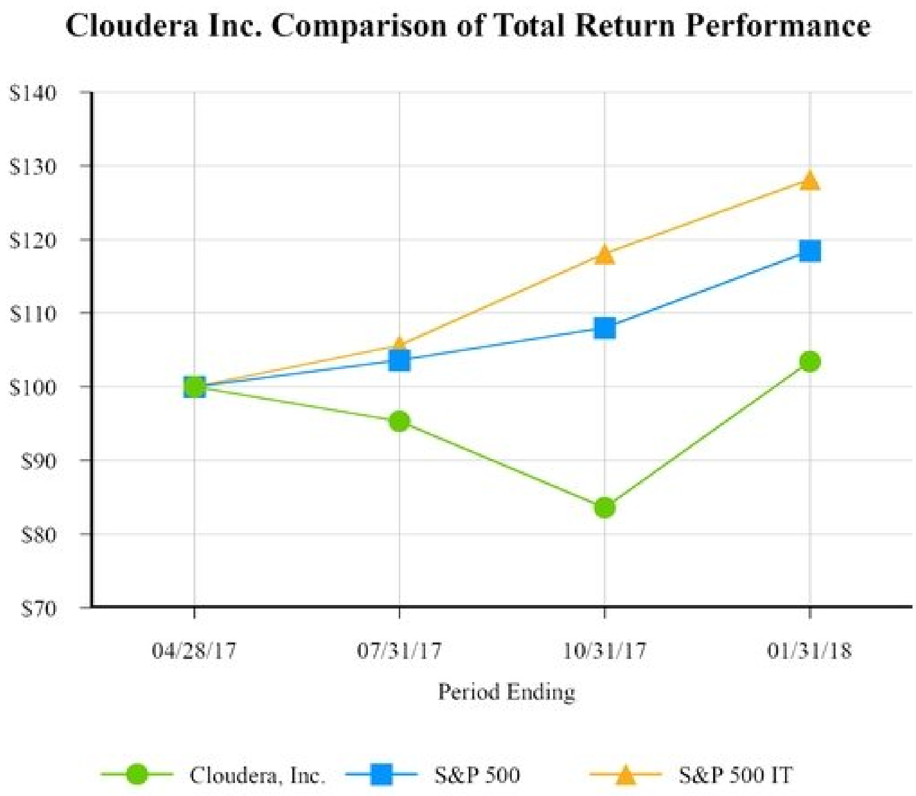
None.

Stock Performance Graph

The following performance graph and related information 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 (the "Exchange Act"), as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Cloudera under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The graph below compares the cumulative total stockholder return on our common stock with the cumulative total return on the S&P 500 Index and the S&P 500 Information Technology Index. The graph assumes $100 was invested at the market close on April 28, 2017 which was our initial trading day, in our common stock. Data for the S&P 500 Index and the S&P 500 Information Technology Index assume reinvestment of dividends. Our offering price of our common stock in our initial public offering (IPO), which had a closing stock price of $18.10 on April 28, 2017, was $15.00 per share.

The comparisons in the graph below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock.



Company/Index	Base Period 04/28/2017	7/31/2017	10/31/2017	1/31/2018
Cloudera, Inc.	$ 100.00	$ 95.30	$ 83.59	$ 103.43
S&P 500 Index	100.00	103.61	108.01	118.44
S&P 500 Information Technology Index	100.00	105.61	118.09	128.17

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended January 31, 2018 , 2017 and 2016, and the selected consolidated balance sheet data as of January 31, 2018 and 2017, have been derived from our audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The selected consolidated statement of operations data for the year ended January 31, 2015, and the selected consolidated balance sheet data as of January 31, 2016 and 2015, have been derived from our audited consolidated financial statements that are not included in this Annual Report on Form 10-K. You should read the following selected consolidated financial data in conjunction with our consolidated financial statements and the accompanying notes and the information in "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected for any other period in the future.

	Year Ended January 31,			
	2018	2017	2016	2015
	(in thousands, except per share data)			
Consolidated Statements of Operations Data:				
Revenue:				
Subscription	$ 301,022	$ 200,252	$ 119,150	$ 72,615
Services	66,421	60,774	46,898	36,503
Total revenue	367,443	261,026	166,048	109,118
Cost of revenue: (1) (2) (4)				
Subscription	70,902	38,704	30,865	18,314
Services	87,133	48,284	44,498	32,148
Total cost of revenue	158,035	86,988	75,363	50,462
Gross profit	209,408	174,038	90,685	58,656
Operating expenses: (1) (2) (3) (4)				
Research and development	215,695	102,309	99,314	66,431
Sales and marketing	298,467	203,161	161,106	103,736
General and administrative	85,539	55,907	34,902	25,041
Total operating expenses	599,701	361,377	295,322	195,208
Loss from operations	(390,293)	(187,339)	(204,637)	(136,552)
Interest income, net	5,150	2,756	2,218	327
Other income (expense), net	1,429	(547)	386	(490)
Net loss before provision for income taxes	(383,714)	(185,130)	(202,033)	(136,715)
Provision for income taxes	(2,079)	(2,187)	(1,110)	1,285
Net loss	(385,793)	(187,317)	(203,143)	(135,430)
Deemed dividend to preferred stockholders	—	—	—	(43,207)
Net loss attributable to common stockholders	$ (385,793)	$ (187,317)	$ (203,143)	$ (178,637)
Net loss per share, basic and diluted	$ (3.38)	$ (5.15)	$ (6.21)	$ (6.53)
Weighted-average shares used in computing net loss per share, basic and diluted (5)	114,141	36,406	32,724	27,348

(1) Amounts include stock-based compensation expense as follows:

	Year Ended January 31,			
	2018	2017	2016	2015
	(in thousands)			
Cost of revenue – subscription	$ 24,826	$ 1,426	$ 3,363	$ 996
Cost of revenue – services	31,843	1,803	4,301	1,376
Research and development	100,143	5,606	23,048	11,687
Sales and marketing	90,420	5,757	19,187	11,530
General and administrative	42,774	7,122	13,691	8,477
Total stock-based compensation expense	$ 290,006	$ 21,714	$ 63,590	$ 34,066

(2) Amounts include amortization of acquired intangible assets as follows:

	Year Ended January 31,			
	2018	2017	2016	2015
	(in thousands)			
Cost of revenue – subscription	$ 2,230	$ 1,997	$ 1,732	$ 906
Sales and marketing	1,493	1,723	1,723	1,149
Total amortization of acquired intangible assets	$ 3,723	$ 3,720	$ 3,455	$ 2,055

(3) In January 2017, we donated 1,175,063 shares of our common stock to the Cloudera Foundation. We recorded a non-cash charge of $21.6 million for the fair value of the donated shares, which was recognized in general and administrative expense for the year ended January 31, 2017, see Note 10 to our consolidated financial statements for further discussion.

(4) On April 27, 2017, the effective date of our initial public offering, the liquidity event-related performance condition was achieved for the majority of our RSUs and became probable of being achieved for the remaining RSUs. We recognized stock-based compensation expense using the accelerated attribution method with a cumulative catch-up of stock-based compensation expense in the amount of $181.5 million during fiscal 2018, attributable to service prior to such effective date. See Note 8 to our consolidated financial statements for further discussion.

(5) See Notes 2 and 12 to our consolidated financial statements for an explanation of the calculations of our basic and diluted net loss per share and the weighted-average number of shares used in the computation of the per share amounts.

	As of January 31,			
	2018	2017	2016	2015
	(in thousands)			
Consolidated Balance Sheet Data:				
Cash and cash equivalents	$ 43,247	$ 74,186	$ 35,966	$ 359,814
Marketable securities, current and noncurrent	399,422	181,480	362,279	138,448
Working capital	218,428	110,616	142,717	387,096
Total assets	689,158	442,544	512,887	575,239
Deferred revenue, current and noncurrent	292,011	217,424	158,175	116,089
Redeemable convertible preferred stock	—	657,687	657,687	657,687
Total stockholders' equity (deficit)	322,977	(483,756)	(343,509)	(222,640)

Non-GAAP Financial Measure

In addition to our results determined in accordance with U.S. generally accepted accounting principles (GAAP), we believe the following non-GAAP financial measure is useful in evaluating our operating performance.

	Year Ended January 31,			
	2018	2017	2016	2015
	(in thousands)			
Other Financial Statement Data:				
Non-GAAP operating loss	$ (96,564)	$ (140,331)	$ (137,592)	$ (100,431)

We define non-GAAP operating loss as loss from operations before stock-based compensation expense, amortization of acquired intangible assets and donation of our common stock to the Cloudera Foundation. We believe that this non-GAAP financial measure, when taken together with the corresponding GAAP financial measure, provides meaningful supplemental information regarding our performance by excluding certain items that may not be indicative of our business, operating results or future outlook. Our management uses, and believes that investors benefit from referring to, this non-GAAP financial measure in evaluating our operating results, as well as when planning, forecasting, budgeting and analyzing future periods. We also use non-GAAP operating loss in conjunction with traditional GAAP measures to communicate with our board of directors concerning our financial performance.

We believe non-GAAP operating loss provides investors and other users of our financial information consistency and comparability with our past financial performance and facilitates period to period comparisons of operations. We believe non-GAAP operating loss is useful in evaluating our operating performance compared to that of other companies in our industry as this metric generally eliminates the effects of certain items that may vary for different companies for reasons unrelated to overall operating performance. Our definition may differ from the definitions used by other companies and therefore comparability may be limited. In addition, other companies may not publish this or similar metrics. Thus, our non-GAAP operating loss should be considered in addition to, not as a substitute for or in isolation from, measures prepared in accordance with GAAP.

We compensate for these limitations by providing investors and other users of our financial information a reconciliation of non-GAAP operating loss to loss from operations, the related GAAP financial measure. We encourage investors and others to review our financial information in its entirety, not to rely on any single financial measure and to view non-GAAP operating loss in conjunction with loss from operations. The following table provides a reconciliation of loss from operations to non-GAAP operating loss:

	Year Ended January 31,			
	2018	2017	2016	2015
	(in thousands)			
Loss from operations	$ (390,293)	$ (187,339)	$ (204,637)	$ (136,552)
Stock-based compensation expense	290,006	21,714	63,590	34,066
Amortization of acquired intangible assets	3,723	3,720	3,455	2,055
Donation of common stock to the Cloudera Foundation	—	21,574	—	—
Non-GAAP operating loss	$ (96,564)	$ (140,331)	$ (137,592)	$ (100,431)

For the reasons set forth below, we believe that excluding the components described below provides useful information to investors and others in understanding and evaluating our operating results and future prospects in the same manner as we do and in comparing our financial results across accounting periods and to financial results of peer companies.

- *Stock-Based Compensation Expense.* We exclude stock-based compensation expense from our non-GAAP financial measure consistent with how we evaluate our operating results and prepare our operating plans, forecasts and budgets. Further, when considering the impact of equity award grants, we focus on overall stockholder dilution rather than the accounting charges associated with such equity grants. The exclusion of the expense facilitates the comparison of results and business outlook for future periods with results for prior periods in order to better understand the long term performance of our business.

- *Amortization of Acquired Intangible Assets.* We exclude the amortization of acquired intangible assets from our non-GAAP financial measure. Although the purchase accounting for an acquisition necessarily reflects the accounting value assigned to intangible assets, our management team excludes the GAAP impact of acquired intangible assets when evaluating our operating results. Likewise, our management team excludes amortization of acquired intangible assets from our operating plans, forecasts and budgets. The exclusion of the expense facilitates the comparison of results and business outlook for future periods with results for prior periods in order to better understand the long term performance of our business.

- *Donation of common stock to the Cloudera Foundation.* During the fourth quarter of fiscal 2017, we issued 1,175,063 shares of our common stock to the Cloudera Foundation for no consideration. This resulted in a one-time non-cash charge of $21.6 million , which was recorded in general and administrative expenses on the consolidated statement of operations. Our management team does not consider this expense when evaluating our operating performance and we do not expect to make future grants of shares to the Cloudera Foundation and therefore consider this charge non-recurring and exclude the GAAP impact of the donation when evaluating our operating results. The exclusion of the expense facilitates the comparison of results and business outlook for future periods with results for prior periods in order to better understand the long - term performance of our business.

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 elsewhere in this Annual Report on From 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 From 10-K. Our fiscal year end is January 31, and references throughout this Annual Report to a given fiscal year are to the twelve months ended on that date.

Overview

Cloudera empowers organizations to become data-driven enterprises. We have developed the modern platform for machine learning and analytics, optimized for the cloud. We collaborate extensively with the global open source community, continuously innovate in data management technologies and leverage the latest advances in infrastructure including the public cloud for "big data" applications. Our pioneering hybrid open source software (HOSS) model incorporates the best of open source with our robust proprietary software to form an enterprise-grade platform. This platform delivers an integrated suite of capabilities for data management, machine learning and advanced analytics, affording customers an agile, scalable and cost-effective solution for transforming their businesses. Our platform enables organizations to use vast amounts of data from a variety of sources, including the Internet of Things (IoT), to better serve and market to their customers, design connected products and services and reduce risk through greater insight from data.

We generate revenue primarily from sales of our term-based subscriptions of our platform generally on a per node basis, whether deployed on-premises or in the cloud. We also offer consumption-based pricing for cloud-based deployments. In addition, we generate revenue from professional services and training.

We market and sell our platform to a broad range of organizations, although we focus our selling efforts on the largest enterprises globally. We target these organizations because they capture and manage the vast majority of the world's data and operate highly complex IT environments. We market our platform primarily through a direct sales force while benefiting from business driven by our ecosystem of technology partners, resellers, OEMs, MSPs, independent software vendors and systems integrators. Our total number of Global 8000 customers grew to 698 as of January 31, 2018 from 566 as of January 31, 2017.

We compile our Global 8000 list based upon the FORBES Global 2000 ranking of the top 2000 global enterprises as determined by FORBES. The remainder of our Global 8000 list is based on entities listed in Data.com as having the highest annual revenue, excluding those that are already listed in the FORBES Global 2000. For purposes of customer count, we define a customer as an entity with a unique FORBES Global 2000 or Data.com identifier and quarterly subscription revenue as of the measurement date. We update our list of Global 8000 customers periodically. Our customer count is subject to adjustments for acquisitions, spin-offs and other market activity or other factors and previously disclosed numbers of customers are updated to allow for comparability. While we do not typically count multiple entities within a given Global 8000 customer as a new customer, we do make exceptions for holding companies and other organizations for which the FORBES Global 2000 or Data.com identifier in our judgment does not accurately represent the Cloudera customer. The FORBES Global 2000 list is updated annually in the second quarter of the calendar year and we have since updated our previously disclosed numbers of customers to allow for comparability.

We have a broad customer base that spans industries and geographies. For the year ended January 31, 2018 , 2017 and 2016, no customer accounted for more than 10% of our total revenue. We have significant revenue in the banking and financial services, technology, business services, telecommunications, public sector, consumer and retail, and healthcare and life sciences verticals, and continue to expand our penetration across many other data-intensive industries. Sales outside of the United States represented approximately 28% , 25% and 21% of our total revenue for the years ended January 31, 2018 , 2017 and 2016 , respectively.

Our business model is based on a “land and expand” strategy designed to use the initial sale as a foothold to increase revenue per customer by increasing the amount of data and number of use cases each customer runs through our platform. After an initial purchase of our platform, we work with our customers to identify new use cases that can be developed on or moved to our platform, ultimately increasing the amount of data managed on our platform as well as the number and size of our platform deployments.

Our quarterly net subscription revenue expansion rate equals:

- the subscription revenue in a given quarter from end user customers that had subscription revenue in the same quarter of the prior year,

divided by

- the subscription revenue attributable to that same group of customers in that prior quarter.

Our net expansion rate equals the simple arithmetic average of our quarterly net subscription revenue expansion rate for the four quarters ending with the most recently completed fiscal quarter. We have excluded Intel Corporation from our calculation of net expansion rate, as it is a related party. Our net expansion rate for the years ended January 31, 2018 , 2017 and 2016 was 136% , 142% and 130% , respectively.

Components of Results of Operations

Revenue

We generate revenue primarily from the sale of subscriptions for our platform that our customers deploy either on-premises or in the cloud, as well as the sale of services. Subscription revenue primarily relates to term (or time-based) subscriptions to our platform, which includes both open source and proprietary software. Our subscription arrangements are typically one to three years in length and we recognize subscription revenue ratably over the term of the subscription period. Our subscription includes internet, email and phone support, bug fixes and the right to receive unspecified software updates and upgrades released when and if available during the subscription term. Services revenue relates to professional services for the implementation and use of our subscriptions, machine learning expertise and consultation, customer training and education services, and related reimbursable travel costs.

Cost of Revenue

Cost of revenue for subscriptions primarily consists of personnel costs including salaries, bonuses, travel costs, benefits and stock-based compensation for employees providing technical support for our subscription customers, allocated shared costs (including rent and information technology) and amortization of acquired intangible assets from business combinations. Cost of revenue for services primarily consists of personnel costs including salaries, bonuses, benefits and stock-based compensation, fees to subcontractors associated with service contracts, travel costs and allocated shared costs (including rent and information technology). We expect cost of revenue to increase in absolute dollars for the foreseeable future as we continue to obtain new customers and expand our relationship with existing customers. As discussed in detail below, see “—Significant Impacts of Stock-based Compensation Expense,” during fiscal 2018 our initial public offering was declared effective and the performance-based condition for the RSUs was either achieved or probable of being achieved. As such we recognized a cumulative catch-up of stock-based compensation expense attributable to service prior to such effective date for RSUs.

Operating Expenses

Research and Development. Research and development expenses primarily consist of personnel costs including salaries, bonuses, travel costs, benefits and stock-based compensation for our research and development employees, contractor fees, allocated shared costs (including rent and information technology), supplies, and depreciation of equipment associated with the continued development of our platform prior to establishment of technological feasibility and the related maintenance of the existing technology. We expect our research and development expenses to increase in absolute dollars for the foreseeable future as we continue to enhance and add new technologies, features and functionality to our subscriptions. We also expect allocated shared costs to increase in the periods following the commencement of the leases for our new headquarters in Palo Alto in July 2017 and our new office in San Francisco in December 2017. As discussed in detail below, see "—Significant Impacts of Stock-based Compensation Expense," during fiscal 2018 our initial public offering was declared effective and the performance-based condition for the RSUs was either achieved or probable of being achieved. As a result, we recognized a cumulative catch-up of stock-based compensation expense attributable to service prior to such effective date for RSUs.

Sales and Marketing. Sales and marketing expenses primarily consist of personnel costs including salaries, bonuses, travel costs, sales-based incentives, benefits and stock-based compensation for our sales and marketing employees. In addition, sales and marketing expenses also includes costs for advertising, promotional events, corporate communications, product marketing and other brand-building activities, allocated shared costs (including rent and information technology) and amortization of acquired intangible assets from business combinations. Sales-based incentives are expensed as incurred. We expect our sales and marketing expenses to increase in absolute dollars as we continue to invest in selling and marketing activities to attract new customers and expand our relationship with existing customers. We also expect allocated shared costs to increase in the periods following the commencement of the leases for our new headquarters in Palo Alto in July 2017 and our new office in San Francisco in December 2017. As discussed in detail below, see "—Significant Impacts of Stock-based Compensation Expense," during fiscal 2018 our initial public offering was declared effective and the performance-based condition for the RSUs was either achieved or probable of being achieved. As a result, we recognized a cumulative catch-up of stock-based compensation expense attributable to service prior to such effective date for RSUs.

General and Administrative. General and administrative expenses primarily consist of personnel costs including salaries, bonuses, travel costs, benefits and stock-based compensation for our executive, finance, legal, human resources, information technology and other administrative employees. In addition, general and administrative expenses include fees for third-party professional services, including consulting, legal and accounting services and other corporate expenses, and allocated shared costs (including rent and information technology). We expect our general and administrative expenses to increase in absolute dollars due to the anticipated growth of our business and related infrastructure as well as legal, accounting, insurance, investor relations and other costs associated with becoming a public company. We also expect allocated shared costs to increase in the periods following the commencement of the lease for our new headquarters in Palo Alto in July 2017. As discussed in detail below, see "—Significant Impacts of Stock-based Compensation Expense," during fiscal 2018 our initial public offering was declared effective and the performance-based condition for the RSUs was either achieved or probable of being achieved. As a result, we recognized a cumulative catch-up of stock-based compensation expense attributable to service prior to such effective date for RSUs.

Interest Income, net

Interest income primarily relates to amounts earned on our cash and cash equivalents and marketable securities.

Other Income (Expense), net

Other income (expense), net primarily relates to foreign currency transactions, realized gains and losses on our marketable securities, and other non-operating gains or losses.

Provision for Income Taxes

Provision for income taxes primarily consists of federal, state and foreign income taxes. Due to cumulative losses, we maintain a valuation allowance against our deferred tax assets. We consider all available evidence, both positive and negative, in assessing the extent to which a valuation allowance should be applied against our U.S. deferred tax assets.

Significant Impacts of Stock-based Compensation Expense

We have granted RSUs to our employees and members of our board of directors under our 2008 Equity Incentive Plan, or the 2008 Plan, and our 2017 Equity Incentive Plan, or the 2017 Plan. Prior to our IPO in May 2017, the employee RSUs vest upon the satisfaction of both a service-based condition and a liquidity event-related performance condition. The service-based vesting condition for these awards is generally satisfied pro-rata over four years. The liquidity event-related performance condition was achieved for the majority of our RSUs and probable of being achieved for the remaining RSUs on April 27, 2017, the effective date of our initial public offering. We recognized stock-based compensation expense using the accelerated attribution method with a cumulative catch-up of stock-based compensation expense in the amount of $181.5 million during fiscal 2018, attributable to service prior to such effective date.

The total stock-based compensation expense recorded on the effective date of our initial public offering associated with the achievement of the liquidity event-related performance condition was as follows (in thousands):

Cost of revenue – subscription	$	15,292
Cost of revenue – services		19,695
Research and development		65,250
Sales and marketing		58,219
General and administrative		23,080
Total stock-based compensation expense	$	181,536

Tender Offer

In May 2015, an unrelated third party initiated a cash tender offer which was completed in July 2015 for the purchase of our common stock from specified categories of current and former employees which had a significant impact on our stock-based compensation expense for the year ended January 31, 2016. Sellers participating in the tender offer sold a total of 4,079,131 shares of common stock to the unrelated third party. The purchase price per share in the tender offer was in excess of the fair value of our outstanding common stock at the time of the transaction and accordingly, upon the completion of the transaction, we recorded $16.6 million as stock-based compensation expense related to the excess of the selling price per share of common stock paid to our employees over the fair value of the tendered shares.

Additionally, the completion of the tender offer was a qualifying liquidity event, such that the performance-based vesting requirement was satisfied for those RSUs that had met the service-based condition at this date. Upon the completion of the transaction, we recorded $19.7 million of stock-based compensation expense for the RSUs for which both the service-based condition and the qualifying liquidity event had been achieved.

The total stock-based compensation expense related to the tender offer impacted our fiscal 2016 as follows (in thousands):

Cost of revenue – subscription	$	1,954
Cost of revenue – services		2,514
Research and development		16,179
Sales and marketing		9,481
General and administrative		6,191
Total stock-based compensation expense	$	36,319

Results of Operations

The following table sets forth our results of operations for the periods indicated:

	Year Ended January 31,		
	2018	2017	2016
	(in thousands)		
Revenue:			
Subscription	$ 301,022	$ 200,252	119,150
Services	66,421	60,774	46,898
Total revenue	367,443	261,026	166,048
Cost of revenue: (1) (2)			
Subscription	70,902	38,704	30,865
Services	87,133	48,284	44,498
Total cost of revenue	158,035	86,988	75,363
Gross profit	209,408	174,038	90,685
Operating expenses: (1) (2) (3)			
Research and development	215,695	102,309	99,314
Sales and marketing	298,467	203,161	161,106
General and administrative	85,539	55,907	34,902
Total operating expenses	599,701	361,377	295,322
Loss from operations	(390,293)	(187,339)	(204,637)
Interest income, net	5,150	2,756	2,218
Other income (expense), net	1,429	(547)	386
Net loss before provision for income taxes	(383,714)	(185,130)	(202,033)
Provision for income taxes	(2,079)	(2,187)	(1,110)
Net loss	$ (385,793)	$ (187,317)	$ (203,143)

(1) Amounts include stock-based compensation expense as follows:

	Year Ended January 31,		
	2018	2017	2016
	(in thousands)		
Cost of revenue – subscription	$ 24,826	$ 1,426	$ 3,363
Cost of revenue – services	31,843	1,803	4,301
Research and development	100,143	5,606	23,048
Sales and marketing	90,420	5,757	19,187
General and administrative	42,774	7,122	13,691
Total stock - based compensation expense	$ 290,006	$ 21,714	$ 63,590

(2) Amounts include amortization of acquired intangible assets as follows:

	Year Ended January 31,		
	2018	2017	2016
		(in thousands)	
Cost of revenue – subscription	$ 2,230	$ 1,997	$ 1,732
Sales and marketing	1,493	1,723	1,723
Total amortization of acquired intangible assets	$ 3,723	$ 3,720	$ 3,455

(3) In January 2017, we donated 1,175,063 shares of common stock to the Cloudera Foundation. We recorded a non-cash charge of $21.6 million for the fair value of the donated shares, which was recognized in general and administrative expense for the year ended January 31, 2017, see Note 10 to our consolidated financial statements for further discussion.

The following table sets forth selected consolidated statements of operations data for each of the periods indicated as a percentage of total revenue:

	Year Ended January 31,		
	2018	2017	2016
Revenue:			
Subscription	82 %	77 %	72 %
Services	18	23	28
Total revenue	100	100	100
Cost of revenue (1) (2) :			
Subscription	19	15	18
Services	24	18	27
Total cost of revenue	43	33	45
Gross margin	57	67	55
Operating expenses (1) (2) (3) :			
Research and development	59	39	60
Sales and marketing	81	78	97
General and administrative	23	21	21
Total operating expenses	163	138	178
Loss from operations	(106)	(72)	(123)
Interest income, net	1	1	1
Other income (expense), net	—	—	—
Net loss before provision for income taxes	(105)	(71)	(122)
Provision for income taxes	—	(1)	(1)
Net loss	(105) %	(72) %	(123) %

(1) Amounts include stock-based compensation expense as a percentage of total revenue as follows:

	Year Ended January 31,		
	2018	2017	2016
Cost of revenue – subscription	7%	1%	2%
Cost of revenue – services	9	1	3
Research and development	27	2	14
Sales and marketing	24	1	11
General and administrative	12	3	8
Total stock - based compensation expense	79%	8%	38%

(2) Amounts include amortization of acquired intangible assets as a percentage of total revenue as follows:

	Year Ended January 31,		
	2018	2017	2016
Cost of revenue – subscription	1%	1%	1%
Sales and marketing	—	—	1
Total amortization of acquired intangible assets	1%	1%	2%

(3) As a percentage of revenue, the non-cash expense recognized for the donation of common stock to the Cloudera Foundation for the year ended January 31, 2017 was 8%.

Year Ended January 31, 2018 and 2017

Revenue

	Year Ended January 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Subscription	$ 301,022	$ 200,252	$ 100,770	50%
Services	66,421	60,774	5,647	9%
Total revenue	$ 367,443	$ 261,026	$ 106,417	41%
As a percentage of total revenue:				
Subscription	82%	77%		
Services	18%	23%		
Total revenue	100%	100%		

The increase in subscription revenue during the year ended January 31, 2018 compared to the year ended January 31, 2017 was primarily attributable to volume driven increases in subscription sales to new and existing customers. Our net expansion rate for the period ended January 31, 2018 was 136%.

During the year ended January 31, 2018 as compared to the year ended January 31, 2017, our services revenue increased at a lower rate compared to the increase in our subscription revenue primarily due to our existing customers increasing experience with the technology and our efforts to develop relationships with partners and other system integrators, resulting in a shift of the provision of such services to these partners.

Cost of Revenue, Gross Profit and Gross Margin

	Year Ended January 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Cost of revenue:				
Subscription	$ 70,902	$ 38,704	$ 32,198	83%
Services	87,133	48,284	38,849	80%
Total cost of revenue	$ 158,035	$ 86,988	$ 71,047	82%
Gross profit	$ 209,408	$ 174,038	$ 35,370	20%
Gross margin:				
Subscription	76 %	81%		
Services	(31)%	21%		
Total gross margin	57 %	67%		
Cost of revenue, as a percentage of total revenue:				
Subscription	19 %	15%		
Services	24 %	18%		
Total cost of revenue	43 %	33%		

The increase in cost of revenue for subscription during the year ended January 31, 2018 compared to the year ended January 31, 2017 was primarily due to an increase of $23.4 million in stock - based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO, an increase of $6.5 million in salaries and benefits related to growth in employee headcount to support our overall expansion in customers and an increase of $2.2 million in allocated shared costs.

Subscription gross margin declined from 81% to 76% in the year ended January 31, 2018 as compared to the same period a year ago due to the recording of stock-based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO.

The increase in cost of revenue for services during the year ended January 31, 2018 compared to the year ended January 31, 2017 was primarily due to an increase of $30.0 million in stock - based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO, an increase of $7.5 million in salaries and benefits related to growth in employee headcount and an increase of $0.9 million in allocated shared costs.

Services gross margin declined from 21% to negative 31% in the year ended January 31, 2018 as compared to the same period a year ago due to the recording of stock-based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO.

Operating Expenses

	Year Ended January 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Research and development	$ 215,695	$ 102,309	$ 113,386	111%
Sales and marketing	298,467	203,161	95,306	47%
General and administrative	85,539	55,907	29,632	53%
Total operating expenses	$ 599,701	$ 361,377	$ 238,324	66%
Operating expenses, as a percentage of total revenue:				
Research and development	59%	39%		
Sales and marketing	81%	78%		
General and administrative	23%	21%		
Total operating expenses	163%	138%		

Research and Development

The increase in research and development expenses during the year ended January 31, 2018 compared to the year ended January 31, 2017 was primarily due to an increase of $94.5 million in stock‑based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO, an increase of $12.9 million in employee-related costs including salaries, benefits and travel costs associated with the growth in employee headcount and an increase of $6.6 million in allocated shared costs, offset by a decrease of $1.9 million in costs for services from external vendors.

Sales and Marketing

The increase in sales and marketing expenses during the year ended January 31, 2018 compared to the year ended January 31, 2017 was primarily due to an increase of $84.7 million in stock‑based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO, an increase of $8.1 million in employee-related costs including salaries, incentive‑based compensation and benefits and travel costs associated with the growth in employee headcount to support our overall sales activities and an increase of $2.6 million in allocated shared costs, offset by a decrease of $0.2 million in advertising costs.

General and Administrative

The increase in general and administrative expenses during the year ended January 31, 2018 compared to the year ended January 31, 2017 was primarily due to an increase of $35.7 million in stock‑based compensation expense resulting from the achievement of the liquidity event-related performance condition on the effective date of the IPO, an increase of $8.4 million in employee-related costs including salaries, benefits and travel costs associated with the growth in employee headcount to support our overall expansion, a cash donation of $2.4 million, or 1% of the net proceeds from the IPO, to fund the Cloudera Foundation and an increase of $0.9 million in costs for services from external vendors, offset by a decrease of a $21.6 million non-cash charge related to the donation of 1,175,063 shares of our common stock to the Cloudera Foundation in fiscal 2017.

Interest Income, net

	Year Ended January 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Interest income, net	$ 5,150	$ 2,756	$ 2,394	87%

Interest income, net increased primarily due to an increase in our cash balance obtained from the net proceeds of the IPO during the year ended January 31, 2018 as compared to the same period a year ago.

Other Income (Expense), net

	Year Ended January 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Other income (expense), net	$ 1,429	$ (547)	$ 1,976	not meaningful

Other income (expense), net increased primarily due to an increase of $1.9 million from foreign exchange gains during the year ended January 31, 2018 as compared to the same period a year ago.

Provision for Income Taxes

	Year Ended January 31,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Provision for income taxes	$ 2,079	$ 2,187	$ (108)	(5) %

Provision for income taxes decreased primarily due to an income tax benefit of $0.8 million resulting from an acquisition, offset by increases in foreign income taxes and tax withholding from increases on foreign sales, during the year ended January 31, 2018 as compared to the same period a year ago.

Year Ended January 31, 2017 and 2016

Revenue

	Year Ended January 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Subscription	$ 200,252	$ 119,150	$ 81,102	68%
Services	60,774	46,898	13,876	30%
Total revenue	$ 261,026	$ 166,048	$ 94,978	57%
As a percentage of total revenue:				
Subscription	77%	72%		
Services	23%	28%		
Total revenue	100%	100%		

The increase in subscription revenue during the year ended January 31, 2017 compared to the year ended January 31, 2016 was primarily attributable to volume driven increases in subscription sales to new and existing customers. Our net expansion rate for the period ended January 31, 2017 was 142%.

During the year ended January 31, 2017 as compared to the year ended January 31, 2016, our services revenue increased at a lower rate compared to the increase in our subscription revenue primarily due to our existing customers increasing experience with the technology and our efforts to develop relationships with partners and other system integrators, resulting in a shift of the provision of such services to these partners.

Cost of Revenue, Gross Profit and Gross Margin

	Year Ended January 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Cost of revenue:				
Subscription	$ 38,704	$ 30,865	$ 7,839	25%
Services	48,284	44,498	3,786	9%
Total cost of revenue	$ 86,988	$ 75,363	$ 11,625	15%
Gross profit	$ 174,038	$ 90,685	$ 83,353	92%
Gross margin:				
Subscription	81%	74%		
Services	21%	5%		
Total gross margin	67%	55%		
Cost of revenue, as a percentage of total revenue:				
Subscription	15%	18%		
Services	18%	27%		
Total cost of revenue	33%	45%		

The increase in cost of revenue for subscription during the year ended January 31, 2017 compared to the year ended January 31, 2016 was primarily due to an increase of $8.0 million in salaries and benefits related to growth in employee headcount to support our overall expansion in customers and an increase of $1.1 million in allocated shared costs, partially offset by a decrease of $1.9 million in stock - based compensation expense mainly due to the tender offer in July 2015, which was not repeated in fiscal 2017.

Subscription gross margin improved from 74% to 81% in fiscal 2017 as compared to fiscal 2016.

The increase in cost of revenue for services during the year ended January 31, 2017 compared to the year ended January 31, 2016 was primarily due to an increase of $4.1 million in salaries and benefits related to growth in employee headcount and an increase of $1.3 million in fees to subcontractors as a result of higher demand of services by our customers, offset by a decrease of $2.5 million in stock - based compensation expense mainly due to the tender offer in July 2015, which was not repeated in fiscal 2017.

Services gross margin improved from 5% to 21% in fiscal 2017 as compared to fiscal 2016.

Operating Expenses

	Year Ended January 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Research and development	$ 102,309	$ 99,314	$ 2,995	3%
Sales and marketing	203,161	161,106	42,055	26%
General and administrative	55,907	34,902	21,005	60%
Total operating expenses	$ 361,377	$ 295,322	$ 66,055	22%
Operating expenses, as a percentage of total revenue:				
Research and development	39%	60%		
Sales and marketing	78%	97%		
General and administrative	21%	21%		
Total operating expenses	138%	178%		

Research and Development

The increase in research and development expenses during the year ended January 31, 2017 compared to the year ended January 31, 2016 was primarily due to an increase of $15.8 million in employee-related costs including salaries, benefits and travel costs associated with the growth in employee headcount, an increase of $0.9 million in depreciation expense of equipment to support our research and development activities and an increase of $1.7 million in allocated shared costs, partially offset by a decrease of $17.4 million in stock - based compensation expense mainly due to the tender offer in July 2015 which was not repeated in fiscal 2017.

Sales and Marketing

The increase in sales and marketing expenses during the year ended January 31, 2017 compared to the year ended January 31, 2016 was primarily due to an increase of $46.5 million in employee-related costs including salaries, incentive - based compensation, benefits and travel costs associated with the growth in employee headcount to support our overall sales activities and an increase of $2.9 million in allocated shared costs, offset by a decrease of $13.4 million in stock - based compensation expense mainly due to the tender offer in July 2015 which was not repeated in fiscal 2017.

General and Administrative

The increase in general and administrative expenses during the year ended January 31, 2017 compared to the year ended January 31, 2016 was primarily due to a $21.6 million non-cash charge related to the donation of 1,175,063 shares of common stock to the Cloudera Foundation in the fourth quarter of fiscal 2017 and an increase of $8.6 million in employee-related costs including salaries, benefits and travel costs associated with the growth in employee headcount to support our overall expansion, offset by a decrease of $6.6 million in stock - based compensation expense mainly due to the tender offer in July 2015 which was not repeated in fiscal 2017 and decreases in third party consulting and professional service costs.

Interest Income, net

	Year Ended January 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Interest income, net	$ 2,756	$ 2,218	$ 538	24%

Interest income, net increased primarily as a result of higher interest rates obtained from investing more of our cash and cash equivalents in marketable securities during the year ended January 31, 2017 as compared to the same period a year ago.

Other Income (Expense), net

	Year Ended January 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Other income (expense), net	$ (547)	$ 386	$ (933)	not meaningful

Other income (expense), net decreased primarily as a result of an escrow claim adjustment in fiscal 2016 of $0.8 million related to a fiscal 2015 acquisition outside of the measurement period during the year ended January 31, 2017 as compared to the same period a year ago.

Provision for Income Taxes

	Year Ended January 31,		Change	
	2017	2016	Amount	%
	(dollars in thousands)			
Provision for income taxes	$ 2,187	$ 1,110	$ 1,077	97%

Provision for income taxes increased primarily due to an increase in pre - tax income in our foreign locations driven by our continued international expansion into new countries during the year ended January 31, 2017 as compared to the same period a year ago.

Seasonality

We have seasonal and end-of-quarter concentration of our sales, which impacts our ability to plan and manage cash flows and margins. Our sales vary by season with the fourth quarter typically being our strongest sales quarter, and the first quarter typically being our largest collections and operating cash flow quarter. In addition, within each quarter, most sales occur in the last month of that quarter. See “Risk Factors—Our sales cycles can be long, unpredictable and vary seasonally, particularly with respect to large subscriptions, and our sales efforts require considerable time and expense.”

Liquidity and Capital Resources

As of January 31, 2018 , our principal sources of liquidity were cash, cash equivalents and marketable securities totaling $442.7 million which are held for working capital purposes. Our cash equivalents are comprised primarily of money market funds and our marketable securities are comprised of U.S. agency obligations, asset - backed securities, corporate notes and obligations, commercial paper, municipal securities, certificates of deposit and U.S. treasury securities. To date, our principal sources of liquidity have been payments received from customers for our subscriptions and services, the net proceeds we received through the sale of our common stock in our IPO in May 2017, our follow-on offering in October 2017 and private sales of equity securities.

We believe our existing liquidity will be sufficient to meet our working capital and capital expenditure needs for at least the next twelve months. Our future capital requirements may vary materially from those currently planned and will depend on many factors, including our net expansion rate, the timing and extent of spending on research and development efforts, the expansion of sales and marketing activities, the continuing market acceptance of our subscriptions and services and ongoing investments to support the growth of our business. We may in the future enter into arrangements to acquire or invest in complementary businesses, services and technologies and intellectual property rights. From time to time, we may explore additional financing sources which could include equity, equity-linked and debt financing arrangements. We cannot assure you that any additional financing will be available on terms favorable to us, or at all. If adequate funds are not available on acceptable terms, or at all, we may not be able to adequately fund our business plans and it could have a negative effect on our operating cash flows and financial condition.

The following table summarizes our cash flows for the periods indicated:

	Year Ended January 31,		
	2018	2017	2016
	(in thousands)		
Cash used in operating activities	$ (42,268)	$ (116,561)	$ (90,497)
Cash provided by (used in) investing activities	(234,454)	168,586	(242,682)
Cash provided by financing activities	247,322	1,538	9,663
Effect of exchange rate changes	1,067	75	(334)
Net increase (decrease) in cash, cash equivalents and restricted cash	$ (28,333)	$ 53,638	$ (323,850)

Cash Used in Operating Activities

During the year ended January 31, 2018 , cash used in operating activities was $42.3 million which was due to a net loss of $385.8 million partially offset by non - cash adjustments of $301.7 million and an increase from net change in operating assets and liabilities of $41.8 million . Non - cash adjustments primarily consisted of $12.1 million of depreciation and amortization and $290.0 million of stock - based compensation. The net change in operating assets and liabilities was due to an increase in deferred revenue of $74.2 million due to the timing of amounts billed to customers compared to revenue recognized during the same period, a net increase in accounts payable and accrued expenses and other liabilities of $7.4 million due to timing of payments to vendors, an increase in accrued compensation of $5.2 million due to the timing of bonus and incentive-based compensation payments, offset by an increase in accounts receivable of $28.8 million due to the timing of invoicing compared to the receipt of cash from customers and an increase in prepaid expenses and other assets of $16.2 million .

During the year ended January 31, 2017 , cash used in operating activities was $116.6 million which was due to a net loss of $187.3 million partially offset by non - cash adjustments of $56.3 million and an increase from net change in operating assets and liabilities of $14.5 million . Non - cash adjustments consisted of $10.1 million of depreciation and amortization, $21.7 million of stock - based compensation, $21.6 million of expense for the donation of common stock to the Cloudera Foundation and $2.9 million in accretion and amortization of marketable securities. The net change in operating assets and liabilities was due to an increase in deferred revenue of $59.2 million due to the timing of amounts billed to customers compared to revenue recognized during the same period, an increase in accrued compensation of $11.2 million due to the timing of bonus and incentive-based compensation payments, partially offset by an increase in accounts receivable of $52.1 million due to the timing of invoicing compared to the receipt of cash from customers, an increase of $3.3 million in prepaid expenses and other assets and a decrease in accounts payable and accrued expenses and other liabilities of $0.6 million due to the timing of payments to vendors.

During the year ended January 31, 2016 , cash used in operating activities was $90.5 million which was due to a net loss of $203.1 million partially offset by non - cash adjustments of $75.8 million and an increase from net change in operating assets and liabilities of $36.9 million . Non - cash adjustments consisted of $8.6 million of depreciation and amortization, $63.6 million of stock - based compensation and $3.6 million in accretion and amortization of marketable securities. The net change in operating assets and liabilities was due to an increase in deferred revenue of $42.1 million due to the timing of amounts billed to customers compared to revenue recognized during the same period, an increase in accrued compensation of $9.4 million due to the timing of bonus and incentive-based compensation payments, an increase in accounts payable and accrued expenses and other liabilities of $6.2 million due to the timing of payments to vendors, partially offset by an increase in accounts receivable of $19.0 million due to the timing of invoicing compared to the receipt of cash from customers and an increase of $1.8 million in prepaid expenses.

Cash Provided by (Used in) Investing Activities

During the year ended January 31, 2018 , cash used in investing activities was $234.5 million which was due to purchases of marketable securities of $620.3 million , partially offset by sales and maturities of marketable securities of $400.6 million , capital expenditures for the purchase of property and equipment of $13.0 million and cash used in business combinations, net of cash acquired, of $1.9 million .

During the year ended January 31, 2017 , cash provided by investing activities was $168.6 million which was due to sales and maturities of marketable securities of $282.4 million , partially offset by purchases of marketable securities of $103.8 million , cash used in business combinations, net of cash acquired, of $2.7 million and purchases of property and equipment of $7.4 million .

During the year ended January 31, 2016 , cash used in investing activities was $242.7 million which was due to purchases of marketable securities of $411.5 million , cash used in business combinations, net of cash acquired, of $8.9 million , purchases of property and equipment of $5.5 million , offset by sales and maturities of marketable securities of $183.3 million .

Cash Provided by Financing Activities

During the year ended January 31, 2018 , cash provided by financing activities was $247.3 million which was due to the net proceeds from the issuance of common stock in the IPO of $237.4 million , the net proceeds from the follow-on offering of $46.0 million and proceeds from the exercise of stock options and withholdings under our 2017 Employee Stock Purchase Plan (ESPP) of $23.7 million , offset by shares withheld related to net settlement of restricted stock units of $59.8 million .

During the year ended January 31, 2017 , cash provided by financing activities was $1.5 million which was due to proceeds from the exercise of stock options of $3.6 million , offset by payment of deferred offering costs of $2.1 million .

During the year ended January 31, 2016 , cash provided by financing activities was $9.7 million which was due to proceeds from the exercise of stock options of $10.9 million , offset by shares withheld related to net settlement of restricted stock units of $1.2 million .

Off - Balance Sheet Arrangements

We have not entered into any off - balance sheet arrangements and do not have any holdings in variable interest entities.

Contractual Obligations and Commitments

The following table summarizes our non-cancelable contractual obligations as of January 31, 2018 :

	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
	(in thousands)				
Operating leases [1]	$ 299,901	$ 34,625	$ 70,924	$ 61,341	$ 133,011
Total contractual obligations	$ 299,901	$ 34,625	$ 70,924	$ 61,341	$ 133,011

(1) We lease our facilities under long-term operating leases, which expire at various dates through 2027. The lease agreements frequently include provisions which require us to pay taxes, insurance, or maintenance costs.

In June 2017, we entered into a new non-cancelable operating lease agreement to rent office space in San Francisco, California. The lease has an 87-month term, commenced in December 2017 and ends in April 2025 with an option to renew for an additional 60 months . Total minimum lease payments under the lease agreement, included in the table above, are $34.5 million , of which $0.4 million was required to be prepaid upon execution of the lease agreement.

Deferred Revenue and Unbilled Deferred Revenue

Our deferred revenue consists of amounts that have been invoiced but that have not yet been recognized as revenue as of the end of a reporting period.

Unbilled deferred revenue represents future non - cancelable customer commitments under our subscription agreements that have not been invoiced and, accordingly, are not recorded in deferred revenue. For our annual or multiple - year subscription contracts we typically invoice an initial annual amount at contract signing followed by subsequent annual invoices over the contract term. Until these amounts are invoiced, they are not recorded in revenue, deferred revenue, accounts receivable or elsewhere in our consolidated financial statements, and are considered by us to be unbilled deferred revenue. We expect unbilled deferred revenue to fluctuate from period to period for several reasons, including the timing and duration of customer contracts, varying billing cycles and the timing and duration of customer renewals. Unbilled deferred revenue does not include minimum revenue commitments from resellers as we recognize revenue and deferred revenue upon sell - through to an end user customer.

Our total deferred revenue and unbilled deferred subscription revenue was $494.4 million and $378.3 million as of January 31, 2018 and 2017, respectively.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States (GAAP). The preparation of these financial statements requires our management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these judgments and estimates under different assumptions or conditions and any such differences may be material. We believe that our significant accounting policies, which are discussed in Note 2 to our consolidated financial statements, and the accounting policies discussed below, involve a greater degree of complexity, involving management's judgments and estimates. Accordingly, these are the policies we believe are critical to understanding our financial condition and historical and future results of operations.

Revenue Recognition

We generate revenue from subscriptions and services. Subscription arrangements are typically one to three years in length but may be up to seven years in limited cases. Arrangements with our customers typically do not include general rights of return. Incremental direct costs incurred related to the acquisition or origination of a customer contract are expensed as incurred.

Revenue recognition commences when all of the following criteria are met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred; (iii) the fee is fixed or determinable; and (iv) collection is probable.

Subscription revenue

Subscription revenue primarily relates to term (or time - based) subscription agreements for both open source and proprietary software. Subscriptions include internet, email and phone support, bug fixes, and the right to receive unspecified software updates and upgrades released when and if available during the subscription term. Revenue for subscription arrangements is recognized ratably over the contractual term of the arrangement beginning on the date access to the subscription is made available to the customer.

Services revenue

Services revenue relates to professional services for the implementation and use of our subscriptions, machine learning expertise and consultation, training and education services and related reimbursable travel costs.

For time and materials and fixed fee arrangements, revenue is recognized as the services are performed or upon acceptance, if applicable. For milestone - based arrangements, revenue is recognized upon acceptance or subsequent to completion and upon the lapse of any acceptance period.

Revenue for training and education services is recognized upon delivery except for On - Demand Training, which is recognized ratably over the contractual term.

Multiple-element arrangements

Arrangements with our customers generally include multiple elements (e.g., subscription and services). We allocate revenue to each element of the arrangement based on vendor‑specific objective evidence of each element's fair value (VSOE) when we can demonstrate sufficient evidence of the fair value. VSOE for elements of an arrangement is based upon the normal pricing and discounting practices for those elements when sold separately on a stand‑alone basis.

We have established VSOE for some of our services. If VSOE for one or more undelivered elements does not exist, revenue recognition does not commence until delivery of both the subscription and services have commenced, or when VSOE of the undelivered elements has been established. Once revenue recognition commences, revenue for the arrangement is recognized ratably over the longest service period in the arrangement **.**

Reseller arrangements

We also recognize subscription revenue for sales through resellers or other indirect sales channels. Subscription revenue from these sales is generally recognized upon sell - through to an end user customer. Subscription revenue from these sales does not commence until cash is collected where payments to us are believed to be contingent upon payment by the end user to the reseller.

Deferred revenue

Deferred revenue consists of amounts billed to or collected from customers under a binding agreement provided delivery of the related subscription or services has commenced.

Business Combinations, Goodwill and Intangible Assets

We allocate the fair value of purchase consideration in a business combination to tangible assets, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is allocated to goodwill. The allocation of the purchase consideration requires management to make significant estimates and assumptions, especially with respect to intangible assets. These estimates can include, but are not limited to, future expected cash flows from acquired customers and acquired technology from a market participant perspective, useful lives and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable but which are inherently uncertain and unpredictable, and, as a result, actual results may differ from estimates. During the measurement period, which is 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, any subsequent adjustments are recorded to earnings.

We assess goodwill for impairment at least annually and whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. We test goodwill using the two - step process. In the first step, we compare the carrying amount of the reporting unit to the fair value based on the fair value of our common stock. If the fair value of the reporting unit exceeds the carrying value, goodwill is not considered impaired and no further testing is required. If the carrying value of the reporting unit exceeds the fair value, goodwill is potentially impaired and the second step of the impairment test must be performed. In the second step, we would compare the implied fair value of the goodwill to its carrying amount to determine the amount of impairment loss, if any.

Acquired finite - lived intangible assets are amortized over their estimated useful lives. We evaluate the recoverability of our intangible assets for possible impairment whenever events or circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of these assets is measured by a comparison of the carrying amounts to the future undiscounted cash flows the intangible assets are expected to generate. If such review indicates that the carrying amount of our intangible assets is not recoverable, the carrying amount of such assets is reduced to fair value. We have not recorded any such impairment charge during the periods presented.

Stock-based Compensation

We recognize stock-based compensation expense for all stock - based payments. Employee stock - based compensation cost is estimated at the grant date based on the fair value of the equity for financial reporting purposes and is recognized as expense, over the requisite service period. Prior to our IPO, fair value of our common stock for financial reporting purposes was determined considering objective and subjective factors and required judgment to determine the fair value of common stock for financial reporting purposes as of the date of each equity grant or modification.

We calculate the fair value of options and purchase rights granted under the ESPP based on the Black - Scholes option - pricing model. The Black - Scholes model requires the use of various assumptions including expected term and expected stock price volatility. We estimate the expected term for stock options using the simplified method due to the lack of historical exercise activity. The simplified method calculates the expected term as the midpoint between the vesting date and the contractual expiration date of the award. The expected term for the ESPP purchase rights is estimated using the offering period, which is typically six months. We estimate volatility for options and ESPP purchase rights using volatilities of a group of public companies in a similar industry, stage of life cycle, and size. The interest rate is derived from government bonds with a similar term to the option or ESPP purchase right granted. We have not declared nor do we expect to declare dividends. Therefore, there is no dividend impact on the valuation of options or ESPP purchase rights. We use the straight - line method for employee expense attribution for stock options and ESPP purchase rights.

We have granted RSUs to our employees and members of our board of directors under the 2008 Equity Incentive Plan (2008 Plan) and our 2017 Equity Incentive Plan (2017 Plan). Prior to our IPO in May 2017, the employee RSUs vest upon the satisfaction of both a service-based vesting condition and a liquidity event-related performance vesting condition. RSUs granted subsequent to our IPO vest upon the satisfaction of a service-based vesting condition only. The service-based condition for the majority of these awards is generally satisfied pro-rata over four years. The liquidity event related performance condition is satisfied upon the occurrence of a qualifying liquidity event, such as the effective date of an initial public offering, or six months following the effective date of an initial public offering. During the quarter ended April 30, 2017, the majority of RSUs were modified such that the liquidity event related performance condition is satisfied upon the effective date of an initial public offering, rather than six months following an initial public offering. The modification established a new measurement date for these modified RSUs. The liquidity event related performance condition is viewed as a performance based criterion for which the achievement of such liquidity event is not deemed probable for accounting purposes until the event occurs. The liquidity event related performance condition was achieved for the majority of our RSUs and became probable of being achieved for the remaining RSUs on April 27, 2017, the effective date of our initial public offering. We recognized stock-based compensation expense using the accelerated attribution method with a cumulative catch up of stock-based compensation expense in the amount of $181.5 million in fiscal 2018, attributable to service prior to such effective date.

In fiscal 2017 and fiscal 2016, stock - based compensation expense was recorded based on awards that were ultimately expected to vest, and such expense was reduced for estimated forfeitures. When estimating forfeitures, we considered voluntary termination behaviors as well as trends of the actual option forfeitures.

Prior to our IPO, we also recorded stock - based compensation expense when a holder of an economic interest in our company purchased shares from an employee for an amount in excess of the fair value of the common stock at the time of the purchase. We recognized any excess value transferred in these transactions as stock - based compensation expense in the statement of operations.

We estimate the fair value of options and other equity awards granted to non-employees using the Black - Scholes method. These awards are subject to periodic re - measurement over the period during which services are rendered. Stock - based compensation expense is recognized over the vesting period on a straight - line basis.

JOBS Act Accounting Election

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Recent Accounting Pronouncements

Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* , or ASU 2016-09, which simplifies the accounting and reporting of share-based payment transactions, including adjustments to how excess tax benefits and payments for tax withholdings should be classified and provides the election to eliminate the estimate for forfeitures. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted for any entity in any interim or annual period for which financial statements have not been issued or made available for issuance. We have early adopted this standard in the first quarter of fiscal 2018. As a result of this adoption, we have elected to account for forfeitures as they occur. The adoption of this standard did not have a material impact on our consolidated financial statements.

Recently Issued Accounting Standards

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* , or ASU 2014-09, which amended the existing FASB Accounting Standards Codification. ASU 2014 - 09 establishes a principle for recognizing revenue upon the transfer of promised goods or services to customers, in an amount that reflects the expected consideration to be received in exchange for those goods or services and also provides guidance on the recognition of costs related to obtaining and fulfilling customer contracts. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019.

We are currently in the process of assessing the adoption methodology, which allows ASU 2014-09 to be applied either retrospectively to each prior period presented or with the cumulative effect recognized as of the date of initial application. Our final determination will depend on a number of factors, such as the significance of the impact of the new standard on our financial results, system readiness, including that of software procured from third-party providers, and our ability to accumulate and analyze the information necessary to assess the impact on prior period financial statements, as necessary.

We are also currently evaluating the impact ASU 2014-09 will have on our consolidated financial statements and our accounting policies, processes, and system requirements. We have assigned internal resources in addition to engaging third party service providers to assist in the evaluation. While we continue to assess all potential impacts under ASU 2014-09, there is the potential for significant impacts to the timing of our revenue recognition and contract acquisition costs, such as sales commissions. Accounting for sales commissions under ASU 2014-09 is different than our current accounting policy which is to expense sales commissions as incurred whereas such costs will be deferred and amortized under ASU 2014-09. Additionally, we preliminarily believe that the amortization period for such deferred commission costs will be longer than the contract term of the subscription agreement, as ASU 2014-09 requires entities to determine whether the costs relate to specific anticipated contracts.

While we continue to assess the potential impacts of ASU 2014-09, including the areas described above, and anticipate ASU 2014-09 could have a material impact on our consolidated financial statements, we do not know or cannot reasonably estimate the quantitative impact on our financial statements at this time.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* , or ASU 2016-02, which requires lessees to record most leases on their balance sheets but recognize the expenses on their income statements in a manner similar to current practice. ASU 2016-02 states that a lessee would recognize a lease liability for the obligation to make lease payments and a right-to-use asset for the right to use the underlying asset for the lease term. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In June 2016 the FASB issued ASU No. 2016 - 13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* , or ASU 2016 - 13. ASU 2016 - 13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2020, including interim periods within that reporting period. Earlier adoption is permitted in our first interim period in fiscal 2020. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016 - 15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* , or ASU 2016 - 15. ASU 2016 - 15 identifies how certain cash receipts and cash payments are presented and classified in the Statement of Cash Flows. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. This standard should be applied retrospectively and early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory* , or ASU 2016-16. ASU 2016-16 requires entities to recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018. Early adoption is permitted as of the beginning of an annual period. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (ASU 2017-01), which changes the definition of a business to assist entities with evaluating when a set of transferred assets and activities is a business. 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, the set of transferred assets and activities is not a business. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those years. For all other entities, it is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. Early adoption is permitted. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment,* or ASU 2017-04. ASU 2017-04 simplifies how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2021. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting* , or ASU 2017-09, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under ASU 2017-09, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. This standard is effective for all entities for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. Early adoption is permitted. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

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. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. Information relating to quantitative and qualitative disclosures about these markets risks is described below.

Interest Rate Risk

Our primary exposure to market risk relates to interest rate changes. We had cash and cash equivalents and marketable securities totaling $442.7 million and $255.7 million as of January 31, 2018 and 2017, respectively, which were held for working capital purposes. Our cash equivalents are comprised primarily of money market funds and our marketable securities are comprised of U.S. agency obligations, asset - backed securities, corporate notes and obligations, commercial paper, municipal securities, certificates of deposit and U.S. treasury securities. Our investments are made for capital preservation purposes. We do not hold or issue financial instruments for trading or speculative purposes. A hypothetical 100 basis point change in interest rates would change the fair value of our investments in marketable securities by $4.0 million and $1.8 million as of January 31, 2018 and 2017, respectively.

Foreign Currency Risk

Our revenue and expenses are primarily denominated in U.S. dollars. For our non - U.S. operations, the majority of our revenue and expenses are denominated in other currencies such as Euro, British Pound Sterling, Australian Dollar and Chinese Yuan. Fluctuations in foreign currencies impact the amount of total assets, liabilities, revenues, operating expenses and cash flows that we report for our foreign subsidiaries upon the translation of these amounts into U.S. dollars. As the U.S. dollar fluctuates against certain international currencies, the amounts of revenue and deferred revenue that we report in U.S. dollars for foreign subsidiaries that transact in international currencies may also fluctuate relative to what we would have reported using a constant currency rate.

For the year ended January 31, 2018 approximately 12% of our revenue and approximately 13% of aggregate cost of sales and operating expenses were generated in currencies other than U.S. dollars. For the year ended January 31, 2017, approximately 10% of our revenue and approximately 17% of aggregate cost of sales and operating expenses were generated in currencies other than U.S. dollars.

For the year ended January 31, 2018, we recorded a gain on foreign exchange transactions of $1.3 million. For the year ended January 31, 2017, we recorded a loss on foreign exchange transactions of $0.7 million. To date, we have not had a formal hedging program with respect to foreign currency, but we may do so in the future if our exposure to foreign currency should become more significant. For the year ended January 31, 2018, a 10% increase or decrease in current exchange rates could have a $2.1 million impact on our financial results.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Stockholders and Board of Directors
Cloudera, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cloudera, Inc. (the Company) as of January 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit) and cash flows for each of the three years in the period ended January 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at January 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended January 31, 2018, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether to error or fraud. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2011.

Redwood City, California
April 4, 2018

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CLOUDERA, INC.

Consolidated Balance Sheets
(in thousands, except share and par value data)

	As of January 31, 2018	As of January 31, 2017
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 43,247	$ 74,186
Short-term marketable securities	327,842	160,770
Accounts receivable, net	130,579	101,549
Prepaid expenses and other current assets	31,470	13,197
Total current assets	533,138	349,702
Property and equipment, net	17,600	13,104
Marketable securities, noncurrent	71,580	20,710
Intangible assets, net	5,855	7,051
Goodwill	33,621	31,516
Restricted cash	18,052	15,446
Other assets	9,312	5,015
TOTAL ASSETS	$ 689,158	$ 442,544
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)		
CURRENT LIABILITIES:		
Accounts payable	$ 2,722	$ 3,550
Accrued compensation	41,393	33,376
Other accrued liabilities	13,454	9,918
Deferred revenue, current portion	257,141	192,242
Total current liabilities	314,710	239,086
Deferred revenue, less current portion	34,870	25,182
Other liabilities	16,601	4,345
TOTAL LIABILITIES	366,181	268,613
Commitments and contingencies (Note 6)		
Redeemable convertible preferred stock, $0.00005 par value; no shares authorized, issued, and outstanding at January 31, 2018; 74,907,415 shares authorized, issued, and outstanding at January 31, 2017; aggregate liquidation preference of zero and $670,875 at January 31, 2018 and January 31, 2017, respectively	—	657,687
STOCKHOLDERS' EQUITY (DEFICIT):		
Preferred stock, $0.00005 par value; 20,000,000 shares authorized, no shares issued and outstanding at January 31, 2018; no shares authorized, issued and outstanding, at January 31, 2017	—	—
Common stock, $0.00005 par value; 1,200,000,000 and 160,000,000 shares authorized at January 31, 2018 and 2017, respectively; 145,327,001 and 38,156,688 shares issued and outstanding at January 31, 2018 and 2017, respectively	7	2
Additional paid-in capital	1,385,592	192,795
Accumulated other comprehensive loss	(832)	(556)
Accumulated deficit	(1,061,790)	(675,997)
TOTAL STOCKHOLDERS' EQUITY (DEFICIT)	322,977	(483,756)
TOTAL LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)	$ 689,158	$ 442,544

See accompanying notes to consolidated financial statements.

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CLOUDERA, INC.

Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended January 31,		
	2018	2017	2016
Revenue:			
Subscription	$ 301,022	$ 200,252	$ 119,150
Services	66,421	60,774	46,898
Total revenue	367,443	261,026	166,048
Cost of revenue: (1) (2)			
Subscription	70,902	38,704	30,865
Services	87,133	48,284	44,498
Total cost of revenue	158,035	86,988	75,363
Gross profit	209,408	174,038	90,685
Operating expenses: (1) (2) (3)			
Research and development	215,695	102,309	99,314
Sales and marketing	298,467	203,161	161,106
General and administrative	85,539	55,907	34,902
Total operating expenses	599,701	361,377	295,322
Loss from operations	(390,293)	(187,339)	(204,637)
Interest income, net	5,150	2,756	2,218
Other income (expense), net	1,429	(547)	386
Net loss before provision for income taxes	(383,714)	(185,130)	(202,033)
Provision for income taxes	(2,079)	(2,187)	(1,110)
Net loss	$ (385,793)	$ (187,317)	$ (203,143)
Net loss per share, basic and diluted	$ (3.38)	$ (5.15)	$ (6.21)
Weighted-average shares used in computing net loss per share, basic and diluted	114,141	36,406	32,724

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

	Year Ended January 31,		
	2018	2017	2016
Cost of revenue – subscription	$ 24,826	$ 1,426	$ 3,363
Cost of revenue – services	31,843	1,803	4,301
Research and development	100,143	5,606	23,048
Sales and marketing	90,420	5,757	19,187
General and administrative	42,774	7,122	13,691

See accompanying notes to consolidated financial statements.

CLOUDERA, INC.

Consolidated Statements of Operations
(in thousands, except per share data)

(2) Amounts include amortization of acquired intangible assets as follows (in thousands):

	Year Ended January 31,		
	2018	2017	2016
Cost of revenue – subscription	$ 2,230	$ 1,997	$ 1,732
Sales and marketing	1,493	1,723	1,723

(3) In January 2017, we donated 1,175,063 shares of common stock to the Cloudera Foundation. We recorded a non-cash charge of $21.6 million for the fair value of the donated shares, which was recognized in general and administrative expense for the year ended January 31, 2017. See Note 10 for further discussion.

See accompanying notes to consolidated financial statements.

CLOUDERA, INC.

Consolidated Statements of Comprehensive Loss
(in thousands)

	Year Ended January 31,		
	2018	2017	2016
Net loss	$ (385,793)	$ (187,317)	$ (203,143)
Other comprehensive income (loss), net of tax:			
Foreign currency translation gains (losses)	349	75	(334)
Unrealized gain (loss) on investments	(625)	113	(187)
Total other comprehensive income (loss), net of tax	(276)	188	(521)
Comprehensive loss	$ (386,069)	$ (187,129)	$ (203,664)

See accompanying notes to consolidated financial statements.

CLOUDERA, INC.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)
(in thousands, except share data)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance as of January 31, 2015	74,907,415	$ 657,687	28,815,224	$ 1	$ 63,119	$ (223)	$ (285,537)	$ (222,640)
Shares issued under employee stock plans	—	—	5,838,389	—	10,865	—	—	10,865
Vested restricted stock units converted into shares	—	—	799,552	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	63,590	—	—	63,590
Shares issued related to business combination	—	—	358,735	—	9,542	—	—	9,542
Shares withheld related to net settlement of restricted stock units	—	—	(36,206)	—	(1,202)	—	—	(1,202)
Unrealized loss on investments	—	—	—	—	—	(187)	—	(187)
Foreign currency translation adjustment	—	—	—	—	—	(334)	—	(334)
Net loss	—	—	—	—	—	—	(203,143)	(203,143)
Balance as of January 31, 2016	74,907,415	657,687	35,775,694	1	145,914	(744)	(488,680)	(343,509)
Shares issued under employee stock plans	—	—	1,157,625	1	3,593	—	—	3,594
Vested restricted stock units converted into shares	—	—	48,306	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	21,714	—	—	21,714
Donation of common stock to the Cloudera Foundation	—	—	1,175,063	—	21,574	—	—	21,574
Unrealized gain on investments	—	—	—	—	—	113	—	113
Foreign currency translation adjustment	—	—	—	—	—	75	—	75
Net loss	—	—	—	—	—	—	(187,317)	(187,317)
Balance as of January 31, 2017	74,907,415	657,687	38,156,688	2	192,795	(556)	(675,997)	(483,756)
Shares issued under employee stock plans	—	—	5,281,193	—	21,435	—	—	21,435
Vested restricted stock units converted into shares	—	—	9,974,266	—	—	—	—	—
Conversion of redeemable convertible preferred stock to common stock in connection with initial public offering	(74,907,415)	(657,687)	74,907,415	4	657,683	—	—	657,687

See accompanying notes to consolidated financial statements.

CLOUDERA, INC.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)
(in thousands, except share data)

Issuance of common stock in connection with initial public offering, net of offering costs	—	—	17,250,000	1	235,365	—	—	235,366
Issuance of common stock in connection with follow-on public offering, net of offering costs	—	—	3,000,000	—	46,008	—	—	46,008
Stock-based compensation expense	—	—	—	—	290,006	—	—	290,006
Shares issued related to business combination	—	—	358,206	—	2,081	—	—	2,081
Shares withheld related to net settlement of restricted stock units	—	—	(3,600,767)	—	(59,781)	—	—	(59,781)
Unrealized loss on investments	—	—	—	—	—	(625)	—	(625)
Foreign currency translation adjustment	—	—	—	—	—	349	—	349
Net loss	—	—	—	—	—	—	(385,793)	(385,793)
Balance as of January 31, 2018	—	$ —	145,327,001	$ 7	$ 1,385,592	$ (832)	$ (1,061,790)	$ 322,977

See accompanying notes to consolidated financial statements.

CLOUDERA, INC.

Consolidated Statements of Cash Flows
(in thousands)

	Year Ended January 31,		
	2018	**2017**	**2016**
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	$ (385,793)	$ (187,317)	$ (203,143)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	12,102	10,134	8,586
Stock-based compensation	290,006	21,714	63,590
Donation of common stock to the Cloudera Foundation	—	21,574	—
Accretion and amortization of marketable securities	512	2,867	3,605
Loss on disposal of fixed assets	(111)	—	3
Release of deferred tax valuation allowance	(806)	—	—
Changes in assets and liabilities:			
Accounts receivable	(28,788)	(52,139)	(19,015)
Prepaid expenses and other assets	(16,194)	(3,300)	(1,795)
Accounts payable	(667)	(281)	1,455
Accrued compensation	5,179	11,222	9,374
Accrued expenses and other liabilities	8,105	(284)	4,757
Deferred revenue	74,187	59,249	42,086
Net cash used in operating activities	(42,268)	(116,561)	(90,497)
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of marketable securities	(620,329)	(103,776)	(411,524)
Sales of marketable securities	79,069	74,655	71,379
Maturities of marketable securities	321,552	207,792	111,913
Cash used in business combinations, net of cash acquired	(1,937)	(2,700)	(8,911)
Capital expenditures	(12,954)	(7,385)	(5,539)
Proceeds from sale of equipment	145	—	—
Net cash provided by (used in) investing activities	(234,454)	168,586	(242,682)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net proceeds from (payments for) issuance of common stock in initial public offering	237,422	(2,056)	—
Net proceeds from issuance of common stock in follow-on offering	46,008	—	—
Shares withheld related to net share settlement of restricted stock units	(59,781)	—	(1,202)
Proceeds from employee stock plans	23,673	3,594	10,865
Net cash provided by financing activities	247,322	1,538	9,663
Effect of exchange rate changes	1,067	75	(334)
Net increase (decrease) in cash, cash equivalents and restricted cash	(28,333)	53,638	(323,850)
Cash, cash equivalents and restricted cash — Beginning of year	89,632	35,994	359,844
Cash, cash equivalents and restricted cash — End of year	$ 61,299	$ 89,632	$ 35,994
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Cash paid for income taxes	$ 2,694	$ 1,689	$ 1,131
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING ACTIVITIES			
Purchases of property and equipment in other accrued liabilities	$ 1,130	$ 44	$ 793
Fair value of common stock issued as consideration for business combinations	$ 2,081	$ —	$ 9,542
Deferred offering costs in accounts payable and other accrued liabilities	$ —	$ 747	$ —

Conversion of redeemable convertible preferred stock to common stock	$ 657,687	$ —	$ —

See accompanying notes to consolidated financial statements.

CLOUDERA, INC.

Notes to Consolidated Financial Statements

1. Organization and Description of Business

Cloudera, Inc. was incorporated in the state of Delaware on June 27, 2008 and is headquartered in Palo Alto, California. We sell subscriptions and services for our machine learning and analytics platform, optimized for the cloud. This platform delivers an integrated suite of capabilities for data management, machine learning and advanced analytics, affording customers an agile, scalable and cost-effective solution for transforming their businesses.

Unless the context requires otherwise, the words “we,” “us,” “our,” the “Company” and “Cloudera” refer to Cloudera, Inc. and its subsidiaries taken as a whole.

As of January 31, 2018 , we had an accumulated deficit of $1,061.8 million . We have funded our operations primarily with the net proceeds we received through the sale of our common stock in our initial public offering (IPO), private sales of equity securities and proceeds from the sale of our subscriptions and services. Management believes that currently available resources will be sufficient to fund our cash requirements for at least the next twelve months.

Initial Public Offering

On May 3, 2017, we completed our IPO in which we issued and sold 17,250,000 shares of common stock at a public offering price of $15.00 per share. We received net proceeds of $235.4 million after deducting underwriting discounts and commissions of $18.1 million and other issuance costs of $5.3 million . In conjunction with the IPO, we donated $2.4 million , or 1% , of the net proceeds, to fund the Cloudera Foundation’s activities. Immediately prior to the closing of the IPO, all 74,907,415 shares of our then-outstanding redeemable convertible preferred stock automatically converted into shares of common stock and we reclassified $657.7 million from temporary equity to additional paid in capital on our consolidated balance sheet.

Follow-On Offering

On October 2, 2017, we completed our Follow-on Offering, in which we issued and sold 3,000,000 shares of common stock and certain stockholders sold 12,446,930 shares of common stock. The price per share to the public was $16.45 . We received net proceeds of $46.0 million after deducting underwriting discounts and commissions of $2.0 million and other issuance costs of $1.4 million . We did not receive any proceeds from the sale of shares by the selling stockholders. We issued and sold shares in the offering in order to fund the tax withholding and remittance obligations in connection with the vesting and settlement of restricted stock units (RSUs).

2. Summary of Significant Accounting Policies

Basis of Consolidation

The consolidated financial statements include the accounts of Cloudera, Inc. and its wholly owned subsidiaries which are located in various countries, including the United States, Australia, China, Germany, Hungary and the United Kingdom. All intercompany balances and transactions have been eliminated upon consolidation. The financial statements are prepared in accordance with accounting principles generally accepted in the United States (GAAP).

Fiscal Year

Our fiscal year ends on January 31. References to fiscal 2018 , for example, refers to the fiscal year ended January 31, 2018 .

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant items subject to such estimates include revenue recognition, the useful lives of property and equipment and intangible assets, allowance for doubtful accounts, stock-based compensation expense, annual bonus attainment, self-insurance costs incurred, the fair value of tangible and intangible assets acquired and liabilities assumed resulting from business combinations, the fair value of common stock prior to our IPO, the assessment of elements in a multi-element arrangement and the valuation assigned to each element, and contingencies. These estimates and assumptions are based on management's best estimates and judgment. Management regularly evaluates its estimates and assumptions using historical experience and other factors; however, actual results could differ significantly from these estimates.

Segments

We operate as two operating segments – subscription and services. Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker, who is our chief executive officer, in deciding how to allocate resources and assess performance.

Foreign Currency Translation

The functional currency of our foreign subsidiaries is the local currency. The gains and losses resulting from translating our foreign subsidiaries' financial statements into U.S. dollars have been reported in accumulated other comprehensive loss on the consolidated balance sheet. Assets and liabilities are translated at exchange rates in effect at the balance sheet date. Equity is translated at the historical rates from the original transaction period. Revenue and expenses are translated at average exchange rates in effect during the period. Foreign currency transaction gains and losses are included in other income, net on the statement of operations.

Cash, Cash Equivalents and Restricted Cash

Cash equivalents consist of short-term, highly liquid investments with original maturities of three months or less from the date of purchase. Restricted cash represents cash on deposit with financial institutions in support of letters of credit outstanding in favor of certain landlords for office space, which includes $14.7 million in restricted cash related to a new non-cancelable operating lease agreement to rent office space in Palo Alto, California that was entered into in September 2016.

Cash as reported on the consolidated statements of cash flows includes the aggregate amounts of cash and cash equivalents and the restricted cash as shown on the consolidated balance sheets. Cash as reported on the consolidated statements of cash flows consists of the following (in thousands):

	As of January 31,		
	2018	2017	2016
Cash and cash equivalents	$ 43,247	$ 74,186	$ 35,966
Restricted cash	18,052	15,446	28
Cash, cash equivalents and restricted cash	$ 61,299	$ 89,632	$ 35,994

Marketable Securities

We have investments in various marketable securities which are classified as available for sale. We determine the appropriate classification of marketable securities at the time of purchase and reevaluate such determination at each balance sheet date. The investments are adjusted for amortization of premiums and discounts to maturity and such amortization is included in interest income, net on the statement of operations. Changes in market value considered to be temporary are recorded as unrealized gains or losses in other comprehensive loss. Realized gains and losses and declines in value judged to be other than temporary on available-for-sale securities are included in other income (expense), net on the statement of operations. The cost of securities sold is based on the specific-identification method.

Concentration of Credit Risk and Significant Customers

Financial instruments that subject us to concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities, restricted cash, and accounts receivable. Our cash is deposited with high credit quality financial institutions. At times such deposits may be in excess of the Federal Depository Insurance Corporation insured limits. We have not experienced any losses on these deposits.

At January 31, 2018 and 2017 , one customer represented 16% and 21% , respectively, of accounts receivable. For the years ended January 31, 2018 , 2017 and 2016 , no single customer accounted for 10% or more of revenue.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded at the invoiced amount. We generally do not require collateral and estimate the allowance for doubtful accounts based on the age of outstanding receivables, customer creditworthiness and existing economic conditions. If events or changes in circumstances indicate that specific receivable balances may be impaired, further consideration is given to the collectability of those balances and an allowance is recorded accordingly. Past-due receivable balances are written off when internal collection efforts have been unsuccessful in collecting the amount due. As of January 31, 2018 allowance for doubtful accounts was $0.3 million and was $0.1 million as of both January 31, 2017 and 2016 . The movements in the allowance for doubtful accounts were not significant for any of the periods presented.

Property and Equipment, Net

Property and equipment are stated at cost, net of accumulated depreciation and amortization. Depreciation and amortization of property and equipment is calculated using a straight-line method over the estimated useful lives of the respective assets. Maintenance and repairs that do not extend the life or improve the asset are expensed when incurred.

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

Computer software	2 years
Computer equipment	2-3 years
Furniture and office equipment	3 years
Leasehold improvements	Shorter of remaining lease term or estimated useful life

We review property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. An impairment loss is recognized when the total of estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition is less than its carrying amount. Impairment, if any, would be assessed using discounted cash flows or other appropriate measures of fair value. There was no impairment of property and equipment during the years ended January 31, 2018 , 2017 or 2016 .

Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price in a business combination over the fair value of net tangible and intangible assets acquired. Goodwill amounts are not amortized, but rather tested for impairment at least annually in November or more often if and when circumstances indicate that the carrying value may not be recoverable.

Intangible assets are amortized over their useful lives. Each period we evaluate the estimated remaining useful life of our intangible assets and whether events or changes in circumstances warrant a revision to the remaining period of amortization.

We evaluate the recoverability of our long-lived assets, including intangible assets, for possible impairment whenever events or circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of these assets is measured by comparison of the carrying amount of each asset to the future undiscounted cash flows the asset is expected to generate. If the undiscounted cash flows used in the test for recoverability are less than the carrying amount of these assets, then the carrying amount of such assets is reduced to fair value.

There were no impairments of goodwill or intangible assets during the years ended January 31, 2018 , 2017 or 2016 .

Business Combinations

We use our best estimates and assumptions to assign fair value to tangible and intangible assets acquired and liabilities assumed at the acquisition date. Such estimates are inherently uncertain and subject to refinement. We continue to collect information and reevaluate these estimates and assumptions and record any adjustments to the preliminary estimates to goodwill provided that we are within the measurement period. Upon the conclusion of the measurement period or final determination of the fair value of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to the consolidated statements of operations.

Capitalized Software Costs

Capitalization of software development costs for products to be sold to third parties begins upon the establishment of technological feasibility and ceases when the product is available for general release. There is generally no significant passage of time between achievement of technological feasibility and the availability of our software for general release, and the majority of our software is open-source. Therefore, we have not capitalized any software costs through January 31, 2018 or 2017. All software development costs have been charged to research and development expense in the consolidated statements of operations as incurred.

Comprehensive Loss

Comprehensive loss represents the net loss for the period plus the results of certain changes to stockholders' equity (deficit) that are not reflected in the consolidated statements of operations.

Revenue Recognition

We generate revenue from subscriptions and services. Subscription arrangements are typically one to three years in length but may be up to seven years in limited cases. Arrangements with our customers typically do not include general rights of return. Incremental direct costs incurred related to the acquisition or origination of a customer contract are expensed as incurred.

Revenue recognition commences when all of the following criteria are met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred; (iii) the fee is fixed or determinable; and (iv) collection is probable.

Subscription revenue

Subscription revenue primarily relates to term (or time-based) subscription agreements for both open source and proprietary software. Subscriptions include internet, email and phone support, bug fixes, and the right to receive unspecified software updates and upgrades released when and if available during the subscription term. Revenue for subscription arrangements is recognized ratably over the contractual term of the arrangement beginning on the date access to the subscription is made available to the customer.

Services revenue

Services revenue relates to professional services for the implementation and use of our subscriptions, machine learning expertise and consultation, training and education services and related reimbursable travel costs.

For time and materials and fixed fee arrangements, revenue is recognized as the services are performed or upon acceptance, if applicable. For milestone-based arrangements, revenue is recognized upon acceptance or subsequent to completion upon the lapse of any acceptance period.

Revenue for training and education services is recognized upon delivery, except for On-Demand Training, which is recognized ratably over the contractual term.

Multiple - element arrangements

Arrangements with our customers generally include multiple elements such as subscription and services. We allocate revenue to each element of the arrangement based on vendor-specific objective evidence of each element's fair value (VSOE) when we can demonstrate sufficient evidence of the fair value. VSOE for elements of an arrangement is based upon the normal pricing and discounting practices for those elements when sold separately on a stand-alone basis.

We have established VSOE for some of our services. If VSOE for one or more undelivered elements does not exist, revenue recognition does not commence until delivery of both the subscription and services have commenced, or when VSOE of the undelivered elements has been established. Once revenue recognition commences, revenue for the arrangement is recognized ratably over the longest service period in the arrangement **.**

Reseller arrangements

We recognize subscription revenue for sales through resellers or other indirect sales channels. Subscription revenue from these sales is generally recognized upon sell-through to an end user customer. Where payments to us are believed to be contingent upon payment by the end user to the reseller, subscription revenue is not recognized until cash is collected.

Deferred revenue

Deferred revenue consists of amounts billed to or collected from customers under a binding agreement provided delivery of the related subscription or services has commenced.

Cost of Revenue

Cost of revenue for subscriptions and services is expensed as incurred. Cost of revenue for subscriptions primarily consists of personnel costs such as salaries, bonuses and benefits and stock-based compensation for employees providing technical support for our subscription customers, allocated shared costs (including rent and information technology) and amortization of acquired intangible assets. Cost of revenue for services primarily consists of personnel costs for employees and subcontractors associated with service contracts, travel costs and allocated shared costs.

Research and Development

Research and development costs are expensed as incurred and primarily include personnel costs, contractor fees, allocated shared costs, supplies, and depreciation of equipment associated with the development of new features for our subscriptions prior to the establishment of their technological feasibility.

Advertising Costs

Advertising costs are expensed as incurred. Advertising costs were $0.6 million , $0.8 million and $0.7 million for the years ended January 31, 2018 , 2017 and 2016 , respectively.

Stock-Based Compensation

We recognize stock-based compensation expense for all stock-based payments. Employee stock-based compensation cost is estimated at the grant date based on the fair value of the equity for financial reporting purposes and is recognized as expense over the requisite service period. Prior to our IPO, fair value of our common stock for financial reporting purposes was determined considering objective and subjective factors and required judgment to determine the fair value of common stock for financial reporting purposes as of the date of each equity grant or modification.

We calculate the fair value of options and purchase rights granted under the 2017 Employee Stock Purchase Plan (ESPP) based on the Black - Scholes option - pricing model. The Black - Scholes model requires the use of various assumptions including expected term and expected stock price volatility. We estimate the expected term for stock options using the simplified method due to the lack of historical exercise activity. The simplified method calculates the expected term as the midpoint between the vesting date and the contractual expiration date of the award. The expected term for the ESPP purchase rights is estimated using the offering period, which is typically six months. We estimate volatility for options and ESPP purchase rights using volatilities of a group of public companies in a similar industry, stage of life cycle, and size. The interest rate is derived from government bonds with a similar term to the option or ESPP purchase right granted. We have not declared nor do we expect to declare dividends. Therefore, there is no dividend impact on the valuation of options or ESPP purchase rights. We use the straight - line method for employee expense attribution for stock options and ESPP purchase rights.

We have granted RSUs to our employees and members of our board of directors under our 2008 Equity Incentive Plan (2008 Plan) and our 2017 Equity Incentive Plan (2017 Plan). Prior to our IPO in May 2017, the employee RSUs vest upon the satisfaction of both a service-based vesting condition and a liquidity event-related performance condition. RSUs granted subsequent to our IPO vest upon the satisfaction of a service-based vesting condition only. The service-based condition for the majority of these awards is generally satisfied pro-rata over four years . The liquidity event-related performance condition is satisfied upon the occurrence of a qualifying liquidity event, such as the effective date of an IPO, or six months following the effective date of an IPO. During the quarter ended April 30, 2017, the majority of RSUs were modified such that the liquidity event-related performance condition is satisfied upon the effective date of an IPO, rather than six months following an IPO. The modification established a new measurement date for these modified RSUs. The liquidity event-related performance condition is viewed as a performance-based criterion for which the achievement of such liquidity event is not deemed probable for accounting purposes until the event occurs. The liquidity event-related performance condition was achieved for the majority of our RSUs and became probable of being achieved for the remaining RSUs on April 27, 2017, the effective date of our IPO. We recognized stock-based compensation expense using the accelerated attribution method with a cumulative catch-up of stock-based compensation expense in the amount of $181.5 million in fiscal 2018, attributable to service prior to such effective date.

In fiscal 2017 and fiscal 2016, stock - based compensation expense was recorded based on awards that were ultimately expected to vest, and such expense was reduced for estimated forfeitures. When estimating forfeitures, we considered voluntary termination behaviors as well as trends of the actual option forfeitures.

Prior to our IPO, we also recorded stock-based compensation expense when a holder of an economic interest in Cloudera purchased shares from an employee for an amount in excess of the fair value of the common stock at the time of the purchase. We recognized any excess value transferred in these transactions as stock-based compensation expense in the consolidated statement of operations.

We estimate the fair value of options and other equity awards granted to non-employees using the Black-Scholes method. These awards are subject to periodic re-measurement over the period during which services are rendered. Stock-based compensation expense is recognized over the vesting period on a straight-line basis.

Income Taxes

We account for income taxes under the liability method, whereby deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. A valuation allowance is established when, in management’s estimate, it is more likely than not that the deferred tax asset will not be realized.

Any liability related to uncertain tax positions is recorded on the financial statements within other liabilities. Penalties and interest expense related to income taxes, including uncertain tax positions, are classified as a component of provision for income taxes, as necessary.

In December 2017, the U.S. federal government enacted the 2017 Tax Cuts & Jobs Act (“Tax Act”). The Tax Act includes a number of changes in existing tax law impacting businesses, including the transition tax, a one-time deemed repatriation of cumulative undistributed foreign earnings and a permanent reduction in the U.S. federal statutory rate from 35% to 21%, effective on January 1, 2018. We are required to recognize the effects of the tax law changes in the period of enactment, including the determination of the transition tax and the re-measurement of deferred taxes as well as to re-assess the realizability of our deferred tax assets. Subsequent to the enactment of the Tax Act, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allows companies to record provisional amounts related to the effects of the Tax Act during a measurement period not to extend beyond one year of the enactment date. Due to the timing of the Tax Act and additional guidance and interpretations that may be issued by the U.S. Treasury Department, IRS and other standard-setting bodies in the future, we have not completed our analysis of the income tax effects of the Tax Act. Our provisional estimates will be adjusted during the measurement period defined under SAB 118, based upon our ongoing analysis of our data and tax positions along with the new guidance from regulators and interpretations of the law.

Net Loss Per Share

We follow the two-class method when computing net loss per common share as we issue shares that meet the definition of participating securities. The two-class method determines net income (loss) per common share for each class of common stock and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common stock and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed. Prior to the automatic conversion into shares of common stock as a result of our IPO, our redeemable convertible preferred stock contractually entitled the holders of such shares to participate in dividends, but did not contractually require the holders of such shares to participate in our losses. For periods in which we have reported net losses, diluted net loss per share is the same as basic net loss per share, because potentially dilutive common shares are not assumed to have been issued if their effect is anti-dilutive.

Commitments and Contingencies

Liabilities for loss contingencies arising from claims, assessments, litigation, fines and penalties and other sources are recorded when it is probable that a liability has been or will be incurred and the amount of the liability can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred.

JOBS Act Accounting Election

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to retain the ability to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* , or ASU 2016-09, which simplifies the accounting and reporting of share-based payment transactions, including adjustments to how excess tax benefits and payments for tax withholdings should be classified and provides the election to eliminate the estimate for forfeitures. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted for any entity in any interim or annual period for which financial statements have not been issued or made available for issuance. We early adopted this standard in the first quarter of fiscal 2018. As a result of this adoption, we have elected to account for forfeitures as they occur. The adoption of this standard did not have a material impact on our consolidated financial statements.

Recently Issued Accounting Standards

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* , or ASU 2014-09, which amended the existing FASB Accounting Standards Codification. ASU 2014-09 establishes a principle for recognizing revenue upon the transfer of promised goods or services to customers, in an amount that reflects the expected consideration received in exchange for those goods or services and also provides guidance on the recognition of costs related to obtaining and fulfilling customer contracts. For public entities, including Cloudera, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. Early adoption is permitted.

We are currently in the process of assessing the adoption methodology, which allows ASU 2014-09 to be applied either retrospectively to each prior period presented or with the cumulative effect recognized as of the date of initial application. Our final determination will depend on a number of factors, such as the significance of the impact of the new standard on our financial results, system readiness, including that of software procured from third-party providers, and our ability to accumulate and analyze the information necessary to assess the impact on prior period financial statements, as necessary.

We are also currently evaluating the impact ASU 2014-09 will have on our consolidated financial statements and our accounting policies, processes, and system requirements. We have assigned internal resources in addition to engaging third party service providers to assist in the evaluation. While we continue to assess all potential impacts under ASU 2014-09, we have completed a preliminary assessment to determine the effect of adoption on our existing revenue arrangements and are analyzing specific transactions to confirm those conclusions. We have also begun implementing our new revenue recognition systems.

We currently recognize subscription revenue ratably over the subscription period. Under the new standard, these subscription arrangements represent two performance obligations; a software license that is delivered upfront and a series of performance obligations that are delivered over time. We believe that a significant portion of our subscription revenue meets the criteria for revenue recognition over time and the vast majority of the revenue will continue to be recognized ratably under the new standard. We expect that a portion of the arrangement fee related to the software license will be recognized upfront, which we believe will usually be insignificant in comparison to the entire arrangement, as we offer the substantial majority of functional features for free in the open source version of our software. Accounting for certain sales commissions under ASU 2014-09 is different than our current accounting policy which is to expense sales commissions as incurred whereas such costs will be deferred and amortized under ASU 2014-09. This will result in an increase in deferred costs recognized on our balance sheet. Additionally, we preliminarily believe that the amortization period for such deferred commission costs will be longer than the contract term of the subscription agreement, as ASU 2014-09 requires entities to determine whether the costs relate to specific anticipated contracts.

While we continue to assess the potential impacts of ASU 2014-09, including the areas described above, and anticipate ASU 2014-09 could have a material impact on our consolidated financial statements, we do not know and cannot reasonably estimate the quantitative impact on our financial statements at this time.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* , or ASU 2016-02, which requires lessees to record most leases on their balance sheets but recognize the expenses on their income statements in a manner similar to current practice. ASU 2016-02 states that a lessee would recognize a lease liability for the obligation to make lease payments and a right-to-use asset for the right to use the underlying asset for the lease term. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In June 2016 the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* , or ASU 2016-13. ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2020, including interim periods within that reporting period. Earlier adoption is permitted in our first interim period in fiscal 2020. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* , or ASU 2016-15. ASU 2016-15 identifies how certain cash receipts and cash payments are presented and classified in the Statement of Cash Flows. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. This standard should be applied retrospectively and early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory* , or ASU 2016-16. ASU 2016-16 requires entities to recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018. Early adoption is permitted as of the beginning of an annual period. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (ASU 2017-01), which changes the definition of a business to assist entities with evaluating when a set of transferred assets and activities is a business. 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, the set of transferred assets and activities is not a business. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those years. For all other entities, it is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. Early adoption is permitted. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment,* or ASU 2017-04. ASU 2017-04 simplifies how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2021. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting* , or ASU 2017-09, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under ASU 2017-09, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. This standard is effective for all entities for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. We will adopt ASU No. 2017-09 on February 1, 2018, and the adoption is not expected to have a material impact on our consolidated financial statements.

3. Cash Equivalents and Marketable Securities

The following are the fair values of our cash equivalents and marketable securities as of January 31, 2018 (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Cash equivalents: (1)				
Money market funds	$ 10,226	$ —	$ —	$ 10,226
Asset-backed securities	1,600	—	—	1,600
Marketable securities:				
U.S. agency obligations	7,803		(39)	7,764
Asset-backed securities	46,529	—	(124)	46,405
Corporate notes and obligations	195,460	3	(517)	194,946
Commercial paper	85,438	—	(16)	85,422
Municipal securities	13,339	—	(18)	13,321
Certificates of deposit	24,705	3	(7)	24,701
U.S. treasury securities	26,903	—	(40)	26,863
Total cash equivalents and marketable securities	$ 412,003	$ 6	$ (761)	$ 411,248

The following are the fair values of our cash equivalents and marketable securities as of January 31, 2017 (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Cash equivalents: (1)				
Money market funds	$ 49,390	$ —	$ —	$ 49,390
U.S. agency obligations	3,249	—	—	3,249
Corporate notes and obligations	2,050	—	—	2,050
Commercial paper	3,998	—	—	3,998
Marketable securities:				
Asset-backed securities	39,281	—	(17)	39,264
Corporate notes and obligations	105,698	5	(116)	105,587
Municipal securities	16,128	—	(23)	16,105
Certificate of deposit	15,500	20	—	15,520
U.S. treasury securities	5,004	—	—	5,004
Total cash equivalents and marketable securities	$ 240,298	$ 25	$ (156)	$ 240,167

(1) Included in "cash and cash equivalents" in the accompanying consolidated balance sheet as of January 31, 2018 and 2017 . Maturities of our noncurrent marketable securities generally range from one year to three years at January 31, 2018 and one year to four years at January 31, 2017 .

As of January 31, 2018 , the following marketable securities were in an unrealized loss position (in thousands):

	Less than 12 months		Greater than 12 months		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. agency obligations	$ 7,764	$ (39)	$ —	$ —	$ 7,764	$ (39)
Asset-backed securities	42,399	(124)	308	—	42,707	(124)
Corporate notes and obligations	173,508	(498)	7,997	(19)	181,505	(517)
Commercial paper	25,852	(16)	—	—	25,852	(16)
Municipal securities	9,323	(18)	—	—	9,323	(18)
Certificates of deposit	16,199	(7)	—	—	16,199	(7)
U.S. treasury securities	21,863	(40)	—	—	21,863	(40)
Total	$ 296,908	$ (742)	$ 8,305	$ (19)	$ 305,213	$ (761)

No marketable securities held as of January 31, 2017 had been in a continuous unrealized loss position for more than twelve months.

The unrealized loss for each of these fixed rate marketable securities ranged from less than $1,000 to $51,000 as of January 31, 2018 and less than $1,000 to $26,000 as of January 31, 2017 . We do not believe any of the unrealized losses represent an other-than-temporary impairment based on our evaluation of available evidence as of January 31, 2018 and 2017 . We expect to receive the full principal and interest on all of these marketable securities and have the ability and intent to hold these investments until a recovery of fair value.

Realized gains and realized losses on our cash equivalents and marketable securities are included in other income (expense), net on the consolidated statement of operations and were not material for the years ended January 31, 2018 , 2017 and 2016.

Reclassification adjustments out of accumulated other comprehensive loss into net loss were not material for the years ended January 31, 2018 and 2017 .

4. Fair Value Measurement

Our financial assets and liabilities consist principally of cash and cash equivalents, marketable securities, restricted cash, accounts receivable, and accounts payable. We measure and record certain financial assets and liabilities at fair value on a recurring basis. The estimated fair value of accounts receivable and accounts payable approximates their carrying value due to their short-term nature. Cash equivalents, marketable securities and restricted cash are recorded at estimated fair value.

All of our cash equivalents and marketable securities are classified within Level 1 or Level 2 because the cash equivalents and marketable securities are valued using quoted market prices or alternative pricing sources and models utilizing observable market inputs.

We follow a three-level valuation hierarchy for disclosure of fair value measurements as follows:

Level 1 Inputs are unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 Inputs (other than quoted market prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

The following table represents our financial assets and liabilities according to the fair value hierarchy, measured at fair value as of January 31, 2018 (in thousands):

	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 10,226	$ —	$ —	$ 10,226
Asset-backed securities	—	1,600	—	1,600
Marketable securities:				
U.S. agency obligations	—	7,764	—	7,764
Asset-backed securities	—	46,405	—	46,405
Corporate notes and obligations	—	194,946	—	194,946
Commercial paper	—	85,422	—	85,422
Municipal securities	—	13,321	—	13,321
Certificates of deposit	—	24,701	—	24,701
U.S. treasury securities (1)	24,886	1,977	—	26,863
Restricted cash:				
Money market funds	14,672	—	—	14,672
Total financial assets	$ 49,784	$ 376,136	$ —	$ 425,920

(1) U.S. treasury securities classified as Level 1 are U.S. treasury bills for which there are quoted prices in active markets

The following table represents our financial assets and liabilities according to the fair value hierarchy, measured at fair value as of January 31, 2017 (in thousands):

	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 49,390	$ —	$ —	$ 49,390
U.S. agency obligations	—	3,249	—	3,249
Corporate notes and obligations	—	2,050	—	2,050
Commercial paper	—	3,998	—	3,998
Marketable securities:				
Asset-backed securities	—	39,264	—	39,264
Corporate notes and obligations	—	105,587	—	105,587
Municipal securities	—	16,105	—	16,105
U.S. treasury securities	—	5,004	—	5,004
Certificate of deposit	—	15,520	—	15,520
Restricted cash:				
Money market funds	15,446	—	—	15,446
Total financial assets	$ 64,836	$ 190,777	$ —	$ 255,613

We value our Level 1 assets using quoted prices in active markets for identical instruments. We value our Level 2 assets with the help of a third-party pricing service using quoted market prices for similar instruments, nonbinding market prices that are corroborated by observable market data, or pricing models such as discounted cash flow techniques. We use such pricing data as the primary input, to which we have not made any material adjustments during the periods presented, to make our determination and assessments as to the ultimate valuation of these assets.

There were no transfers into or out of Level 1, Level 2 or Level 3 assets and liabilities for the years ended January 31, 2018 and 2017 .

5. Balance Sheet Components

Property and Equipment, Net

The cost and accumulated depreciation and amortization of property and equipment are as follows (in thousands):

	As of January 31,	
	2018	2017
Computer equipment and software	$ 17,139	$ 17,981
Office furniture and equipment	7,981	4,350
Leasehold improvements	13,469	8,468
Construction in progress	3,243	—
Property and equipment, gross	41,832	30,799
Less: accumulated depreciation and amortization	(24,232)	(17,695)
Property and equipment, net	$ 17,600	$ 13,104

Construction in progress primarily consists of leasehold improvements that have not been placed into service as of January 31, 2018 .

Depreciation expense was $8.4 million , $6.4 million and $5.2 million for the years ended January 31, 2018 , 2017 and 2016 , respectively.

Intangible Assets

Intangible assets consisted of the following as of January 31, 2018 (dollars in thousands):

	Gross Fair Value	Accumulated Amortization	Net Book Value	Weighted Average Remaining Useful Life (in years)
Developed technology	$ 11,986	$ (6,769)	$ 5,217	2.5
Customer relationships and other acquired intangible assets	6,797	(6,159)	638	4.6
Total	$ 18,783	$ (12,928)	$ 5,855	2.8

Intangible assets consisted of the following as of January 31, 2017 (dollars in thousands):

	Gross Fair Value	Accumulated Amortization	Net Book Value	Weighted Average Remaining Useful Life (in years)
Developed technology	$ 10,155	$ (4,548)	$ 5,607	2.9
Customer relationships and other acquired intangible assets	6,125	(4,681)	1,444	0.8
Total	$ 16,280	$ (9,229)	$ 7,051	2.5

Amortization expense for intangible assets was $3.7 million , $3.7 million and $3.5 million during the years ended January 31, 2018 , 2017 and 2016 , respectively.

The expected future amortization expense of these intangible assets as of January 31, 2018 is as follows (in thousands):

2019	$	2,628
2020		1,738
2021		944
2022		464
2023		81
Total intangible assets, net	$	5,855

Goodwill

The following table represents the changes to goodwill (in thousands):

Balance at January 31, 2016	$	30,551
Additions from an acquisition		965
Balance at January 31, 2017		31,516
Additions from acquisitions		2,105
Balance at January 31, 2018	$	33,621

Accrued Compensation

Accrued compensation consists of the following (in thousands):

	As of January 31,			
	2018		2017	
Accrued salaries, benefits and commissions	$	15,039	$	14,186
Accrued bonuses		17,875		15,338
Employee stock purchase plan withholdings		2,238		—
Accrued compensation related taxes and other		6,241		3,852
Total accrued compensation	$	41,393	$	33,376

Other Accrued Liabilities

Other accrued liabilities consists of the following (in thousands):

	As of January 31,	
	2018	2017
Accrued taxes	$ 2,092	$ 1,585
Deferred real estate costs	334	47
Accrued professional costs	2,463	2,147
Customer deposits	556	301
Deferred sublease income	—	861
Accrued self-insurance costs	1,285	746
Other	6,724	4,231
Total other accrued liabilities	$ 13,454	$ 9,918

Other includes amounts owed to third-party vendors that provide marketing, corporate event planning and cloud-computing services.

6. Commitments and Contingencies

Letters of Credit

As of January 31, 2018 and 2017 , we had a total of $19.7 million and $16.8 million , respectively, in letters of credit outstanding in favor of certain landlords for office space. These letters of credit renew annually and expire at various dates through 2027.

Operating Leases

We lease facilities space under non-cancelable operating leases with various expiration dates. Future minimum lease payments and sublease proceeds under non-cancelable operating leases with an initial lease term greater than one year at January 31, 2018 are as follows (in thousands):

Year Ending January 31:	Minimum Lease Payments	Sublease Rental Proceeds	Net Minimum Lease Payments
2019	$ 34,625	$ (13,292)	$ 21,333
2020	35,478	(13,690)	21,788
2021	35,446	(14,098)	21,348
2022	31,850	(10,858)	20,992
2023	29,491	(4,388)	25,103
2024 and thereafter	133,011	—	133,011
Total	$ 299,901	$ (56,326)	$ 243,575

On February 8, 2017, we entered into a new sublease agreement to sublet office space in Palo Alto, California. The sublease has a 45 month term which commenced in the third quarter of fiscal 2018. Rental proceeds committed under this sublease are reflected above in the amounts of $4.0 million in fiscal 2019, $4.1 million in fiscal 2020, $4.3 million in fiscal 2021 and $0.7 million in fiscal 2022.

In June 2017, we entered into a new non-cancelable operating lease agreement to rent office space in San Francisco, California. The lease has an 87 month term, which commenced in December 2017 and ends in April 2025 with an option to renew for an additional 60 months . Total minimum lease payments under the lease agreement, included in the table above, are $34.5 million , of which $0.4 million was required to be prepaid upon execution of the lease agreement.

Rental expense related to our non-cancelable operating leases was approximately $16.1 million , $8.4 million and $7.2 million for the years ended January 31, 2018 , 2017 and 2016 , respectively.

Deferred rent

We account for operating leases containing predetermined fixed increases of the base rental rate during the lease term on a straight-line basis over the lease term. We recorded the difference between amounts charged to operations and amounts payable under our operating leases as deferred rent in the consolidated balance sheets.

Indemnification

From time to time, we enter into certain types of contracts that contingently require us to indemnify various parties against claims from third parties. These contracts primarily relate to (i) certain real estate leases under which we may be required to indemnify property owners for environmental and other liabilities and other claims arising from our use of the applicable premises, (ii) our bylaws, under which we must indemnify directors and executive officers, and may indemnify other officers and employees, for liabilities arising out of their relationship with us, (iii) contracts under which we must indemnify directors and certain officers for liabilities arising out of their relationship with us, (iv) contracts under which we may be required to indemnify customers or partners against certain claims, including claims from third parties asserting, among other things, infringement of their intellectual property rights, and (v) procurement, consulting, or license agreements under which we may be required to indemnify vendors, consultants or licensors for certain claims, including claims that may be brought against them arising from our acts or omissions with respect to the supplied products, technology or services. From time to time, we may receive indemnification claims under these contracts in the normal course of business. In addition, under these contracts we may have to modify the accused infringing intellectual property and/or refund amounts received.

In the event that one or more of these matters were to result in a claim against us, an adverse outcome, including a judgment or settlement, may cause a material adverse effect on our future business, operating results or financial condition. It is not possible to determine the maximum potential amount under these contracts due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement.

We maintain director and officer insurance, which may cover certain liabilities arising from our obligation to indemnify our directors and certain officers.

To date, we have not incurred any material costs, and have not accrued any liabilities in the consolidated financial statements as a result of these provisions.

Contingencies

In the ordinary course of business, we are or may be involved in a variety of litigation matters, suits, investigations, and proceedings, including actions with respect to intellectual property claims, government investigations, labor and employment claims, breach of contract claims, tax, and other matters. Regardless of the outcome, these litigation matters can have an adverse impact on us because of defense costs, diversion of management resources, harm to reputation, and other factors. In addition, it is possible that an unfavorable resolution of one or more such litigation matters could, in the future, materially and adversely affect our financial position, results of operations, and cash flows in a particular period or subject us to an injunction that could seriously harm our business.

We record a provision for contingent losses when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. With respect to our outstanding legal matters management believes that the amount or estimable range of possible loss will not, either individually or in the aggregate, have a material adverse effect on our business, consolidated financial position, results of operations, or cash flows. However, the outcome of litigation is inherently uncertain. Therefore, if one or more of these legal matters were resolved against us for amounts in excess of management's expectations, our results of operations and financial condition including in a particular reporting period, could be materially adversely affected.

7. Common Stock

The following table summarizes our authorized, issued, reserved and outstanding common stock as of January 31, 2018 :

	Common Reserved	Common Issued	Common Issued or Reserved for Issuance
Common outstanding	—	145,327,001	145,327,001
2017 Equity Incentive Plan:			
Restricted stock units and options outstanding	10,477,251	—	10,477,251
Shares available for grant	25,617,508	—	25,617,508
2017 Employee Stock Purchase Plan:			
Shares available for grant	2,270,850	—	2,270,850
2008 Equity Incentive Plan:			
Restricted stock units and options outstanding	30,144,482	—	30,144,482
Amended and Restated 2008 Stock Purchase and Option Plan (from prior acquisition):			
Options outstanding	28,521	—	28,521
Undesignated	986,134,387	—	986,134,387
	1,054,672,999	145,327,001	1,200,000,000

The following table summarizes our authorized, issued, reserved and outstanding common stock as of January 31, 2017 :

	Authorized Preferred Stock	Preferred Issued	Common Reserved	Common Issued	Common Issued or Reserved for Issuance
Series A	12,936,594	12,936,594	12,936,594	—	12,936,594
Series B	12,314,006	12,314,006	12,314,006	—	12,314,006
Series C	8,951,868	8,951,868	8,951,868	—	8,951,868
Series D	8,965,178	8,965,178	8,965,178	—	8,965,178
Series E	8,756,093	8,756,093	8,756,093	—	8,756,093
Series F	10,989,008	10,989,008	10,989,008	—	10,989,008
Series F-1	11,994,668	11,994,668	11,994,668	—	11,994,668
Common outstanding	—	—	—	38,156,688	38,156,688
2008 Equity Incentive Plan:					
Restricted stock units and options outstanding	—	—	44,560,246	—	44,560,246
Shares available for grant	—	—	581,084	—	581,084
Amended and Restated 2008 Stock Purchase and Option Plan (from prior acquisition):					
Options outstanding	—	—	53,455	—	53,455
Undesignated	—	—	1,741,112	—	1,741,112
	74,907,415	74,907,415	121,843,312	38,156,688	160,000,000

8. Stock Option Plans

We maintain two share-based compensation plans: the 2017 Equity Incentive Plan (2017 Plan), and the 2008 Equity Incentive Plan (2008 Plan) and collectively with the 2017 Plan, the Stock Plans. In March 2017, our board of directors adopted our 2017 Plan, which our stockholders approved in March 2017. The 2017 Plan became effective on April 27, 2017, the effective date of our IPO, and serves as the successor to our 2008 Plan. We do not expect to grant any additional awards under the 2008 Plan. Outstanding awards under the 2008 Plan continue to be subject to the terms and conditions of the 2008 Plan.

In March 2017, we increased the number of shares of common stock reserved for grant under the 2008 Plan by 2,000,000 shares.

In March 2017, we adopted the 2017 Plan with a reserve of 30,000,000 shares of our common stock for issuance under our 2017 Plan, plus an additional number of shares of common stock equal to any shares reserved but not issued or subject to outstanding awards under our 2008 Plan on the effective date of our 2017 Plan, plus, on and after the effective date of our 2017 Plan, (i) shares that are subject to outstanding awards under the 2008 Plan which cease to be subject to such awards, (ii) shares issued under the 2008 Plan which are forfeited or repurchased at their original issue price, and (iii) shares subject to awards under the 2008 Plan that are used to pay the exercise price of an option or withheld to satisfy the tax withholding obligations related to any award. The number of shares reserved for issuance under our 2017 Plan will increase automatically on the first day of February of each calendar year during the term of the 2017 Plan by a number of shares of common stock equal to the lesser of (i) 5% of the total outstanding shares our common stock as of the immediately preceding January 31st or (ii) a number of shares determined by our board of directors. On February 1, 2018, 7.3 million additional shares were authorized for issuance by the board of directors.

The Stock Plans provides for stock options to be granted at an exercise price not less than 100% of the fair market value at the grant date as determined by our board of directors, unless, with respect to incentive stock options, the optionee is a 10% stockholder, in which case the option price will not be less than 110% of such fair market value. Options granted generally have a maximum term of ten years from the grant date, are exercisable upon vesting unless otherwise designated for early exercise by the board of directors at the time of grant, and generally vest over a four year period, with 25% vesting after one year and then ratably on a monthly basis for the remaining three years.

The following tables summarize stock option activity and related information:

		Options Outstanding			
	Shares Available for Grant	Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
					(in thousands)
Balance — January 31, 2016	336,697	24,835,286	$ 4.60	6.9	$ 497,338
Additional shares reserved	10,001,250	—	—	—	—
Restricted stock activity, net	(10,193,963)	—	—	—	
Granted	(370,480)	370,480	17.85	—	—
Exercised		(1,157,625)	3.10	—	—
Canceled	808,462	(808,462)	10.74	—	—
Plan shares expired	(882)	—	—	—	
Balance — January 31, 2017	581,084	23,239,679	4.67	6.0	319,016
Additional shares reserved	32,000,000	—	—	—	—
Restricted stock activity, net	(10,844,829)	—	—	—	—
Granted	(47,400)	47,400	20.10	—	—
Exercised		(4,552,043)	2.67	—	—
Canceled	328,116	(328,116)	14.23	—	—
Shares in lieu of taxes	3,600,767	—	—	—	—
Plan shares expired	(230)	—	—	—	—
Balance — January 31, 2018	25,617,508	18,406,920	$ 5.03	5.3	$ 252,571
Exercisable— January 31, 2018		17,291,561	$ 4.38	5.1	$ 248,344
Vested or expected to vest — January 31, 2018		18,406,920	$ 5.03	5.3	$ 252,571

As of January 31, 2018 and 2017, there were no unvested options exercisable.

The total intrinsic value of options exercised during the years ended January 31, 2018 , 2017 and 2016 was $64.1 million , $18.3 million and $160.0 million respectively. The intrinsic value is the difference between the current fair market value of the stock for accounting purposes at the time of exercise and the exercise price of the stock option. As we have accumulated net operating losses, no future tax benefit related to option exercises has been recognized.

The weighted-average grant-date value of employee options granted during the years ended January 31, 2018 , 2017 and 2016 was $8.67 , $9.37 and $15.54 per share, respectively.

The fair value of each stock option or ESPP grant was estimated at the grant date using the Black-Scholes option-pricing model with the following weighted-average assumptions:

Stock Options	**Year Ended January 31,**		
	2018	**2017**	**2016**
Volatility	45.3%	47.9%	44.3%
Risk-free interest rate	2.0%	2.0%	1.7%
Expected term (in years)	6.1 years	6.0 years	6.1 years
Expected dividends	—%	—%	—%

ESPP	**Year Ended January 31,**	
	2018	**2017**
Volatility	32.9%	n/a
Risk-free interest rate	1.2%	n/a
Expected term (in years)	0.6 years	n/a
Expected dividends	—%	n/a

The unamortized stock-based compensation expense for options of $11.0 million at January 31, 2018 will be recognized over the average remaining vesting period of 1.5 years.

We issue RSUs to employees and directors. For new employee grants, the RSUs generally meet the service-based condition over a four -year period, with 25% met after one year and then ratably on a quarterly basis for the remaining three years. For continuing employee grants, the RSUs generally meet the service-based condition pro-rata quarterly over the four -year period (without a one -year cliff).

The employee RSUs issued prior to our IPO under the 2008 Plan had two vesting conditions: (1) a service-based condition and (2) a liquidity event-related performance condition which is considered a performance-based condition. On March 8, 2017, our board of directors modified the terms of the majority of our RSUs. Prior to the modification, if the liquidity event-related performance condition was an IPO, employees were required to continue to provide service for six months following the effective date of an IPO. The modification removed the requirement, for the majority of RSUs, that the RSU recipient must continue to provide service for six months following the effective date of an IPO in order to vest in the award, with such shares to be issued on a date to be determined by our board of directors. All other significant terms of the RSUs remained unchanged. The modification established a new measurement date for these modified RSUs.

The liquidity event-related performance condition was achieved for the majority of our RSUs and became probable of being achieved for the remaining RSUs on April 27, 2017, the effective date of our IPO. We recognized stock-based compensation expense using the accelerated attribution method with a cumulative catch-up of stock-based compensation expense in the amount of $181.5 million for the year ended January 31, 2018 , attributable to service prior to such effective date.

Restricted stock activity is as follows:

	Restricted Stock Units Outstanding	
	Number of Restricted Stock Units	Weighted-Average Grant Date Fair Value Per Share
Balance — January 31, 2016	11,228,365	$ 26.17
Granted	12,152,584	19.25
Canceled	(1,958,621)	25.03
Vested and converted to shares	(48,306)	24.85
Balance —January 31, 2017	21,374,022	22.36
Granted	12,881,176	16.93
Canceled	(2,037,598)	15.63
Vested and converted to shares	(9,974,266)	15.15
Balance —January 31, 2018	22,243,334	$ 16.08

The unamortized stock-based compensation expense for RSUs was $247.2 million at January 31, 2018 and will be recognized over the average remaining vesting period of 2.4 years.

In May 2015, an unrelated third party initiated a cash tender offer which was completed in July 2015 for the purchase of shares of our common stock from specified categories of current and former employees who sold a total of 4,079,131 shares of our common stock to the unrelated third party. The purchase price per share in the tender offer was in excess of the fair value of our common stock at the time of the transaction and accordingly, upon completion of the transaction, we recorded $16.6 million as stock-based compensation expense related to the excess of the selling price per share of common stock paid to our employees over the fair value of the tendered shares.

This tender offer was a qualifying liquidity event under the 2008 Plan governing RSUs, meaning the performance condition was achieved for those RSUs that had met the service-based condition as of this date. Upon the close of the transaction, we recorded $19.7 million of stock-based compensation expense, using the accelerated attribution method, for the RSUs for which both vesting conditions had been achieved.

2017 Employee Stock Purchase Plan

In March 2017, we adopted our 2017 Employee Stock Purchase Plan (ESPP). The ESPP became effective on April 27, 2017, the effective date of our IPO. Our ESPP is intended to qualify as an employee stock purchase plan under Section 423 of the United States Internal Revenue Code of 1986, as amended (Code). Purchases will be accomplished through participation in discrete offering periods. The first offering period and purchase period began on April 27, 2017 and ended on December 20, 2017. Each subsequent offering period will be for six months (commencing each June 21 and December 21) and will consist of one six -month purchase period, unless otherwise determined by our board of directors or our compensation committee.

Under our ESPP, eligible employees will be able to acquire shares of our common stock by accumulating funds through payroll deductions. Our employees generally are eligible to participate in our ESPP if they are employed by us for at least 20 hours per week and more than five months in a calendar year. Employees who are 5% stockholders, or would become 5% stockholders as a result of their participation in our ESPP, are ineligible to participate in our ESPP. We may impose additional restrictions on eligibility. Our eligible employees are able to select a rate of payroll deduction between 1% and 15% of their base cash compensation. The purchase price for shares of our common stock purchased under our ESPP is 85% of the lesser of the fair market value of our common stock on (i) the first trading day of the applicable offering period and (ii) the last trading day of each purchase period in the applicable offering period. No participant has the right to purchase shares of our common stock in an amount, when aggregated with purchase rights under all our employee stock purchase plans that are also in effect in the same calendar year(s), that has a fair market value of more than $25,000 , determined as of the first day of the applicable purchase period, for each calendar year in which that right is outstanding. In addition, no participant is permitted to purchase more than 2,500 shares during any one purchase period or such lesser amount determined by our compensation committee or our board of directors. Once an employee is enrolled in our ESPP, participation will be automatic in subsequent offering periods. An employee's participation automatically ends upon termination of employment for any reason.

We initially reserved 3,000,000 shares of our common stock for issuance under our ESPP. The number of shares reserved for issuance under our ESPP will increase automatically on February 1st of each of the first 10 calendar years following the first offering date by the number of shares equal to the lesser of either (i) 1% of the total outstanding shares of our common stock as of the immediately preceding January 31st (rounded to the nearest whole share) or (ii) a number of shares of our common stock determined by our board of directors. On February 1, 2018, 1.5 million additional shares were authorized for issuance by the board of directors.

As of January 31, 2018 , $2.2 million has been withheld on behalf of employees for a future purchase under the ESPP and is recorded in other accrued compensation.

9. Income taxes

The domestic and foreign components of loss before provision for income taxes consisted of the following (in thousands):

	Year Ended January 31,		
	2018	2017	2016
Domestic	$ (388,587)	$ (187,905)	$ (204,713)
Foreign	4,873	2,775	2,680
Net loss before income taxes	$ (383,714)	$ (185,130)	$ (202,033)

The components of provision for income taxes are as follows (in thousands):

	Year Ended January 31,		
	2018	2017	2016
Current:			
Federal	$ —	$ —	$ —
State	(112)	(140)	(177)
Foreign	(3,097)	(2,011)	(940)
Total current tax expense	(3,209)	(2,151)	(1,117)
Deferred:			
Federal	917	(108)	—
State	—	—	—
Foreign	213	72	7
Total deferred tax expense	1,130	(36)	7
Total provision for income taxes	$ (2,079)	$ (2,187)	$ (1,110)

Our effective tax rate substantially differed from the federal statutory tax rate of 34% primarily due to the change in the valuation allowance for our deferred tax assets. A reconciliation of income taxes at the statutory federal income tax rate to the provision for income taxes included in the consolidated statements of operations is as follows (in thousands):

	Year Ended January 31,		
	2018	2017	2016
U.S. federal statutory income tax	$ 129,737	$ 62,944	$ 68,691
Research tax credits	7,976	2,235	1,605
Stock-based compensation	(5,124)	(4,340)	(11,060)
Change in valuation allowance	(2,543)	(54,823)	(60,318)
Donation of common stock to the Cloudera Foundation	—	(7,335)	—
Federal tax rate change	(132,387)	—	—
Other	262	(868)	(28)
Provision for income taxes	$ (2,079)	$ (2,187)	$ (1,110)

In December 2017, the U.S. federal government enacted the Tax Act. The Tax Act includes a number of changes in existing tax law impacting businesses, including the transition tax, a one-time deemed repatriation of cumulative undistributed foreign earnings and a permanent reduction in the U.S. federal statutory rate from 35% to 21%, effective on January 1, 2018. Due to the timing of the Tax Act and additional guidance and interpretations that may be issued in the future, we have not completed our analysis of the effects of the Tax Act. However, for the period ended January 31, 2018, the Company recorded a provisional tax expense of $132.4 million associated with the re-measurement of deferred taxes for the corporate rate reduction, which was offset by a corresponding reduction in valuation allowance. Based on our provisional assessment, the transition tax had no material impact to our income tax provision. The provisional estimates will be adjusted during the measurement period defined under SAB 118, based upon our ongoing analysis of our data and tax positions along with new guidance from regulators and interpretations of the law.

The deferred tax assets and liabilities were as follows (in thousands):

	As of January 31,	
	2018	2017
Deferred tax assets:		
Accruals and reserves	$ 12,657	$ 12,282
Deferred revenue	25,057	26,509
Net operating loss carryforward	202,286	165,873
Research and development credits and other credits	27,480	12,009
Stock-based compensation	30,747	9,923
Gross deferred tax assets	298,227	226,596
Less valuation allowance	(297,274)	(225,495)
Total deferred tax assets	953	1,101
Deferred tax liabilities:		
Depreciation and amortization	(510)	(872)
Gross deferred tax liabilities	(510)	(872)
Net deferred tax assets	$ 443	$ 229

As of January 31, 2017 we had not recorded a provision for deferred U.S. tax expense related to $4.8 million of our undistributed earnings of our foreign subsidiaries because these earnings are intended to be permanently reinvested in operations outside of the United States. At December 31, 2017, we have estimated an aggregate deficit in accumulated earnings and profits, which is how foreign undistributed earnings are determined for the one-time transition tax and for U.S. income tax purposes. The deficit is primarily a result of stock option exercises by foreign employees during the year ended January 31, 2018 which exceeded current fiscal year and prior fiscal year foreign earnings. The one-time transition tax does not have a material impact on our consolidated statement of operations for the year ended January 31, 2018 and there are no undistributed accumulated earnings and profits as of December 31, 2017. We intend to indefinitely reinvest future undistributed foreign earnings.

A valuation allowance is provided when it is more likely than not that the deferred tax assets will not be realized. We have established a valuation allowance to offset net U.S. deferred tax assets at January 31, 2018 and 2017 due to the uncertainty of realizing future tax benefits from our net operating loss carryforwards and other deferred tax assets. The net change in the total valuation allowance for the years ended January 31, 2018 and 2017 was an increase of approximately $71.8 million and $60.0 million , respectively.

At January 31, 2018 , we have federal, California and other state net operating loss carryforwards of approximately $810.9 million , $231.1 million and $268.5 million , respectively, expiring beginning fiscal 2028, for federal and California purposes and fiscal 2019 for other states' purposes.

In fiscal 2018, we adopted ASU No. 2016-09, which simplified the accounting and reporting of share-based payment transactions, including adjustments to how excess tax benefits and payments for tax withholdings should be classified and provides the election to eliminate the estimate for forfeitures. Upon adoption, we recognized the previously unrecognized excess tax benefits using the modified retrospective transition method. The previously unrecognized excess tax effects were recorded as a deferred tax asset, which was fully offset by a valuation allowance. Without the valuation allowance, our deferred tax assets would have increased by $53.5 million upon adoption.

At January 31, 2018 , we have federal and state research credit carryforwards of approximately $20.3 million and $17.8 million , respectively, expiring beginning in fiscal 2028 for federal purposes. The state credits can be carried forward indefinitely.

Federal and state tax laws may impose substantial restrictions on the utilization of the net operating loss and credit carryforward attributes in the event of an ownership change as defined in Section 382 and Section 383 of the Internal Revenue Code. Accordingly, our ability to utilize these carryforwards may be limited as a result of such one or more ownership changes. Such a limitation could result in the expiration of carryforwards before they are utilized. The company has performed an analysis to determine whether an ownership change has occurred since inception. The analysis identified two historical ownership changes, however the limitations did not result in a material restriction on the use of our carryforwards. In the event we experience any subsequent changes in ownership, the availability of our carryforwards in any taxable year could change.

For benefits to be recorded, a tax position must be more likely than not to be sustained upon examination. The amount recognized is measured as the larg est amount of benefit that is greater than 50% likely of being realized upon settlement. The following table reflects the changes in the gross unrecognized tax benefits (in thousands):

	Year Ended January 31,		
	2018	2017	2016
Balance as of beginning of year	$ 9,600	$ 6,500	$ 4,200
Tax positions taken in current period			
Gross increases	2,100	3,100	2,300
Balance as of end of year	$ 11,700	$ 9,600	$ 6,500

As of January 31, 2018 , the total amount of gross unrecognized tax benefits was $11.7 million , of which $0.9 million , if recognized, would favorably impact our effective tax rate. We recognize interest and penalties related to income tax matters in the provision for income taxes. As of January 31, 2018 , we had no accrued interest and penalties related to uncertain tax positions. We are subject to taxes in the United States and other foreign jurisdictions. In the normal course of business, we are subject to examination by various federal, state and local taxing authorities. We are not currently under audit by the Internal Revenue Service or any other tax authority. All tax years remain open to examination by major taxing jurisdictions in which we file returns.

10. Related Party Transactions

Intel Corporation

We have been engaged in commercial transactions with Intel Corporation, a holder of our common stock, representing approximately 18% and 22% of outstanding shares as of January 31, 2018 and 2017 respectively, with the right to designate a person that our board of directors must nominate for election, or nominate for re-election, to our board of directors, including a multi-year subscription and services agreement, and a collaboration and optimization agreement. The aggregate revenue we recognized from this customer was $11.4 million , $8.3 million and $5.4 million for the years ended January 31, 2018 , 2017 and 2016 , respectively. In accounts receivable, there was no amount due from this customer as of January 31, 2018 and $2.3 million due from this customer as of January 31, 2017 . There was $2.7 million and $2.1 million in deferred revenue as of January 31, 2018 and 2017 , respectively.

Cloudera Foundation

In January 2017, the Cloudera Foundation, an independent non-profit organization, was created to provide our products, skills and people, to help solve important social problems around the world. We donated 1,175,063 shares of our common stock to the Cloudera Foundation during the fourth quarter of fiscal 2017 . We recorded a non-cash charge of $21.6 million for the fair value of the donated shares, which was recorded in general and administrative expense in the accompanying consolidated statements of operations. In conjunction with the IPO, we donated $2.4 million , or 1% of the net proceeds, to fund the Cloudera Foundation's activities. We do not control the Cloudera Foundation's activities, and accordingly, we do not consolidate the financial statements of the Cloudera Foundation.

Other related parties

Certain members of our board of directors currently serve on the board of directors or as an executive of three companies that are our customers. The aggregate revenue we recognized from these customers was $7.4 million , $5.5 million and $2.4 million for the years ended January 31, 2018 , 2017 and 2016 , respectively. There was $1.5 million and $4.5 million in accounts receivable due from these customers as of January 31, 2018 and 2017 , respectively. There was $5.2 million and $5.5 million in deferred revenue as of January 31, 2018 and 2017 , respectively.

11. Segment Information

The results of the reportable segments are derived directly from our management reporting system and are based on our methods of internal reporting which are not necessarily in conformity with GAAP. Management measures the performance of each segment based on several metrics, including contribution margin, as defined below. Management does not use asset information to assess performance and make decisions regarding allocation of resources. Therefore, depreciation and amortization expense is not allocated among segments.

Contribution margin is used, in part, to evaluate the performance of, and allocate resources to, each of the segments. Segment contribution margin includes segment revenue less the related cost of sales excluding certain operating expenses that are not allocated to segments because they are separately managed at the consolidated corporate level. These unallocated costs include stock-based compensation expense, amortization of acquired intangible assets, direct sales and marketing costs, research and development costs, corporate general and administrative costs, such as legal and accounting, interest income, interest expense, and other income and expense.

Financial information for each reportable segment was as follows (in thousands):

	Year Ended January 31,		
	2018	2017	2016
Revenue:			
Subscription	$ 301,022	$ 200,252	$ 119,150
Services	66,421	60,774	46,898
Total revenue	$ 367,443	$ 261,026	$ 166,048

	Year Ended January 31,		
	2018	2017	2016
Contribution margin:			
Subscription	$ 257,176	$ 164,971	$ 93,380
Services	11,131	14,293	6,701
Total segment contribution margin	$ 268,307	$ 179,264	$ 100,081

The reconciliation of segment financial information to our loss from operations is as follows (in thousands):

	Year Ended January 31,		
	2018	2017	2016
Segment contribution margin	$ 268,307	$ 179,264	$ 100,081
Amortization of acquired intangible assets	(3,723)	(3,720)	(3,455)
Stock-based compensation expense	(290,006)	(21,714)	(63,590)
Donation of common stock to the Cloudera Foundation	—	(21,574)	—
Corporate costs, such as research and development, corporate general and administrative and other	(364,871)	(319,595)	(237,673)
Loss from operations	$ (390,293)	$ (187,339)	$ (204,637)

Sales outside of the United States represented approximately 28% , 25% and 21% of our total revenue for the years ended January 31, 2018 , 2017 and 2016 , respectively. No individual foreign country represented more than 10% of revenue in any period presented. All revenues from external customers are attributed to individual countries on an end-customer basis, based on domicile of the purchasing entity, if known, or the location of the customer's headquarters if the specific purchasing entity within the customer is unknown.

As of January 31, 2018 and 2017 , assets located outside the United States were 4% and 3% of total assets, respectively.

12. Net Loss Per Share

The following table sets forth the calculation of basic and diluted net loss per share during the periods presented (in thousands, except per share data):

	Year Ended January 31,		
	2018	2017	2016
Numerator:			
Net loss	$ (385,793)	$ (187,317)	$ (203,143)
Denominator:			
Weighted-average shares used in computing net loss, basic and diluted	114,141	36,406	32,724
Net loss per share, basic and diluted	$ (3.38)	$ (5.15)	$ (6.21)

The following outstanding shares of common stock equivalents were excluded from the computation of the diluted net loss per share for the periods presented because their effect would have been anti-dilutive (in thousands):

	As of January 31,		
	2018	2017	2016
Redeemable convertible preferred stock on an as-if converted basis	—	74,907	74,907
Stock options to purchase common stock	18,407	23,240	24,835
Restricted stock units	22,243	21,374	11,228
Shares issuable pursuant to the ESPP	522	—	—
Total	41,172	119,521	110,970

13. Selected Quarterly Financial Data (unaudited)

The following table sets forth selected summarized quarterly financial information for each of the eight quarters in fiscal 2018 and 2017 (in thousands, except per share data):

	Three Months Ended				
	April 30	July 31	October 31	January 31	Fiscal Year
Fiscal 2018					
Revenue	$ 79,596	$ 89,828	$ 94,569	$ 103,450	$ 367,443
Gross profit	19,484	57,858	61,443	70,623	209,408
Loss from operations	(222,340)	(65,685)	(56,590)	(45,678)	(390,293)
Net loss	(222,319)	(64,229)	(55,338)	(43,907)	(385,793)
Net loss per share, basic and diluted	$ (5.78)	$ (0.48)	$ (0.40)	$ (0.31)	$ (3.38)
Fiscal 2017					
Revenue	$ 56,485	$ 64,456	$ 67,258	$ 72,827	$ 261,026
Gross profit	35,450	43,117	44,819	50,652	174,038
Loss from operations	(43,516)	(38,787)	(43,988)	(61,048)	(187,339)
Net loss	(43,113)	(38,727)	(44,045)	(61,432)	(187,317)
Net loss per share, basic and diluted	$ (1.20)	$ (1.07)	$ (1.20)	$ (1.67)	$ (5.15)

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 and supervision of our chief executive officer and our chief financial officer, have evaluated our 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)) as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, our chief executive officer and our chief financial officer have concluded that, as of the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in internal control over financial reporting.

Our chief executive officer and chief financial officer did not identify any changes in our internal control over financial reporting in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act during the quarter ended January 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent limitation on the effectiveness of internal control.

The effectiveness of any system of internal control over financial reporting, including ours, is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Accordingly, in designing and evaluating the disclosure controls and procedures, management recognizes that any system of internal control over financial reporting, including ours, no matter how well designed and operated, can only provide reasonable, not absolute assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Moreover, 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. We intend to continue to monitor and upgrade our internal controls as necessary or appropriate for our business, but cannot assure you that such improvements will be sufficient to provide us with effective internal control over financial reporting.

Management's Annual Report on Internal Control over Financial Reporting.

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our independent registered public accounting firm as permitted in this transition period under the rules of the SEC for newly public companies.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Except as set forth below, the information called for by this item will be set forth in our Proxy Statement for the 2018 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended January 31, 2018 and is incorporated herein by reference.

We maintain a Code of Business Conduct and Ethics that incorporates our code of ethics applicable to all employees, including all officers. Our Code of Business Conduct and Ethics is published on the Investor Relations section of our website at www.cloudera.com. We intend to disclose future amendments to certain provisions of our Code of Business Conduct and Ethics, or waivers of such provisions granted to the principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions on this website within four business days following the date of such amendment or waiver.

ITEM 11. EXECUTIVE COMPENSATION

The information called for by this item will be set forth in our Proxy Statement for the 2018 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended January 31, 2018 and is incorporated herein by reference.

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

The information called for by this item will be set forth in our Proxy Statement for the 2018 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended January 31, 2018 and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIP AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information called for by this item will be set forth in our Proxy Statement for the 2018 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended January 31, 2018 and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information called for by this item will be set forth in our Proxy Statement for the 2018 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended January 31, 2018 and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

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

(a) Financial Statements

The information concerning our financial statements, and Report of Independent Registered Public Accounting Firm required by this Item is incorporated by reference herein to the section of this Annual Report on Form 10-K in Item 8, entitled "Consolidated Financial Statements and Supplementary Data."

(b) Financial Statement Schedules

All schedules have been omitted because the required information is not present or not present in amounts sufficient to require submission of the schedules, or because the information required is included in Item 8, entitled the "Consolidated Financial Statements and Supplementary Data."

(c) Exhibits

		Incorporated by Reference				
Exhibit Number	**Exhibit Title**	**Form**	**File No.**	**Exhibit**	**Filing Date**	**Filed Herewith**
3.01	Restated Certificate of Incorporation of the Registrant	10-Q	001-38069	3.01	6/9/2017	
3.02	Restated Bylaws of the Registrant	10-Q	001-38069	3.02	6/9/2017	
4.01	Form of Registrant's Common Stock Certificate	S-1	333-217071	4.01	3/31/2017	
4.02	Amended and Restated Investor Rights Agreement, dated as of March 28, 2017, by and among the Registrant and certain investors of the Registrant	S-1	333-217071	4.02	3/31/2017	
4.03	Voting and Standstill Agreement, dated as of March 28, 2017, by and between the Registrant and Intel Corporation	S-1	333-217071	4.03	3/31/2017	
4.04	Confidentiality Agreement, dated as of March 21, 2014, by and between the Registrant and Intel Corporation	S-1	333-217071	4.04	3/31/2017	
10.01	Form of Indemnification Agreement entered into between the Registrant and each of its directors and executive officers	S-1	333-217071	10.01	3/31/2017	
10.02	2008 Equity Incentive Plan, as amended, and forms of agreement thereunder	S-1	333-217071	10.02	3/31/2017	
10.03	2017 Equity Incentive Plan, and forms of agreement thereunder	S-1/A	333-217071	10.03	4/10/2017	
10.04	2017 Employee Stock Purchase Plan	S-1/A	333-217071	10.04	4/10/2017	
10.05	Offer Letter between Thomas J. Reilly and the Registrant, dated May 22, 2013	S-1	333-217071	10.05	3/31/2017	
10.06	Employment Agreement between Jim Frankola and the Registrant, dated September 10, 2012	S-1	333-217071	10.06	3/31/2017	

10.07	Offer Letter between Michael A. Olson and the Registrant, dated October 2008	S-1	333-217071	10.07	3/31/2017	
10.08†	Lease between 495 Java Drive Associates, L.P. and the Registrant, dated as of April 18, 2013	S-1	333-217071	10.08	3/31/2017	
10.09†	Lease between 395 Page Mill LLC and the Registrant, dated as of September 6, 2016	S-1	333-217071	10.09	3/31/2017	
10.10†	Consent to Sublease between 395 Page Mill LLC, Machine Zone, Inc. and the Registrant dated as of September 26, 2016	S-1	333-217071	10.10	3/31/2017	
10.11	Sublease between Rubrik, Inc. and the Registrant, dated as of February 8, 2017	S-1	333-217071	10.11	3/31/2017	
10.12	Amended and Restated Collaboration and Optimization Agreement, dated as of March 28, 2017, by and between the Registrant and Intel Corporation	S-1	333-217071	10.12	3/31/2017	
10.13†	Enterprise Subscription Agreement, dated as of April 25, 2014, by and between the Registrant and Intel Corporation	S-1	333-217071	10.13	3/31/2017	
10.14	Gazzang, Inc. Amended and Restated 2008 Stock Purchase and Option Plan	S-8	333-217522	4.07	4/28/2017	
10.15	Cloudera Bonus Plan - Executive Officers and Leadership Team	8-K	001-38069	10.1	3/29/2018	
10.16	Cloudera Bonus Plan - 2019 Performance Metrics	8-K	001-38069	10.2	3/29/2018	
10.17†	Amendment 1 to the Enterprise Subscription Agreement, dated as of October 31, 2017, by and between the Registrant and Intel Corporation					X
10.18†	Amendment 2 to the Enterprise Subscription Agreement, dated as of November 17, 2017, by and between the Registrant and Intel Corporation					X
10.19†	Amendment No. 2 to Collaboration and Optimization Agreement, dated as of February 1, 2018, by and between the Registrant and Intel Corporation					X
10.20	Amendment 3 to the Enterprise Subscription Agreement, dated as of March 30, 2018 by and between the Registrant and Intel Corporation					X
10.21	Form of the Registrant's Severance and Change in Control Agreement					X
21.01	List of subsidiaries	S-1	333-217071	21.01	3/31/2017	
23.02	Consent of Independent Registered Public Accounting Firm					X
24.01	Power of Attorney (included on signature pages to Annual Report)					X
31.01	Certification of Thomas J. Reilly, Chief Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.02	Certification of Jim Frankola, Chief Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.01#	Certification of Thomas J. Reilly, Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X

32.02#	Certification of Jim Frankola, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X
101.INS	XBRL Instance Document	X
101.SCH	XBRL Schema Linkbase Document	X
101.CAL	XBRL Calculation Linkbase Document	X
101.DEF	XBRL Definition Linkbase Document	X
101.EXT	XBRL Extension Label Linkbase Document	X
101.PRE	XBRL Presentation Linkbase Document	X

* Previously filed.

† Confidential treatment has been granted with respect to portions of this exhibit.

\# This certification is deemed not filed for purposes of section 18 of the Exchange Act, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CLOUDERA, INC.

Date: April 4, 2018	By:	/s/ Thomas J. Reilly
		Thomas J. Reilly
		Chief Executive Officer and Director
		(Principal Executive Officer)
Date: April 4, 2018	By:	/s/ Jim Frankola
		Jim Frankola
		Chief Financial Officer
		(Principal Financial Officer)
Date: April 4, 2018	By:	/s/ Priya Jain
		Priya Jain
		VP, Corporate Controller
		(Principal Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Thomas J. Reilly, Jim Frankola and Priya Jain, and each of them, as his or her true and lawful attorneys-in-fact, proxies, and agents, each with full power of substitution, for him or her 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, proxies, and agents 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 for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies, and agents, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Name	Title	Date
/s/ Thomas J. Reilly Thomas J. Reilly	Chief Executive Officer and Director *(Principal Executive Officer)*	April 4, 2018
/s/ Jim Frankola Jim Frankola	Chief Financial Officer *(Principal Financial Officer)*	April 4, 2018
/s/ Priya Jain Priya Jain	Vice President, Corporate Controller *(Principal Accounting Officer)*	April 4, 2018
/s/ Michael A. Olson Michael A. Olson	Chief Strategy Officer and Chairman (Director)	April 4, 2018
/s/ Martin I. Cole Martin I. Cole	Director	April 4, 2018
/s/ Kimberly Hammonds Kimberly Hammonds	Director	April 4, 2018
/s/ Ping Li Ping Li	Director	April 4, 2018
/s/ Rose Schooler Rose Schooler	Director	April 4, 2018
/s/ Steve J. Sordello Steve J. Sordello	Director	April 4, 2018
/s/ Michael A. Stankey Michael A. Stankey	Director	April 4, 2018

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS AND ASTERISKS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED INFORMATION.

Exhibit 10.17

Amendment 1 to the Enterprise Subscription Agreement

This Amendment 1 ("Amendment 1") is entered into as of October 31, 2017 ("Amendment 1 Effective Date") by and between Cloudera, Inc., a Delaware corporation, with offices at 395 Page Mill Road, Palo Alto, CA 94306 ("Cloudera") and Intel Corporation and its Affiliates, a Delaware corporation, with offices at 2200 Mission College Boulevard, Santa Clara, CA 94504 ("Customer") and amends that certain Enterprise Subscription Agreement entered into by and between the parties dated April 25, 2014 ("Agreement").

The parties hereby agree to amend the Agreement as follows:

Notwithstanding anything to the contrary In Section 4.1 of the Agreement, Customer agrees that Cloudera may [***]. Such [***] will not modify the agreed payment due date as set forth in Exhibit C.

Integration; Conflict. The provisions of this Amendment will govern notwithstanding anything to the contrary in the Agreement. Except as otherwise expressly provided or modified herein, the terms and conditions of the Agreement remain in full force and effect, and the Agreement and this Amendment constitute the entire and exclusive agreement between the parties regarding the subject matter hereof, and supersede all proposals and prior agreements, oral or written, and all other communications.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their duly authorized representatives.

Customer: Intel Corporation		**Cloudera, Inc.**	
Signature:	/s/ Sommer Starr	Signature:	/s/ Wayne Kimber
Printed:	Sommer Starr	Printed:	Wayne Kimber
Title:	Commodity Manager	Title:	VP Finance & PAO
Date:	31-Oct-2017	Date:	31-Oct-2017

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS AND ASTERISKS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED INFORMATION.

Exhibit 10.18

Amendment 2
to the Enterprise Subscription Agreement No. CW1985661

This Amendment 2 (“Amendment 2”) is entered into as of November 17, 2017 (“Amendment 2 Effective Date”) by and between Cloudera, Inc., a Delaware corporation, with offices at 395 Page Mill Road, Palo Alto, CA 94306 (“Cloudera”) and Intel Corporation and its Affiliates, a Delaware corporation, with offices at 2200 Mission College Boulevard, Santa Clara, CA 94504 (“Customer”) and amends that certain Enterprise Subscription Agreement entered into by and between the parties dated April 25, 2014 (“Agreement”), CW1985661.

The parties hereby agree to amend the Agreement as follows:

1. Amended Terms.

A. Modify and append the following definitions:

The following definitions replaces the same definition in the Agreement:

1.3 “ Cloudera Products ” means the (i) Cloudera Open Source Distribution, the Cloudera Software and the Cloudera Online Services, and (ii) any Third Party Software (as defined below) incorporated in the foregoing.

1.4 “ Cloudera Software ” means Cloudera’s proprietary software components set forth in the applicable Order Form for a Subscription Period. Cloudera Software does not include Cloudera Online Services.

1.6 “ Node ” means a physical or virtual computer providing data processing capabilities or running coordinator processes to drive data processing activities, including but not limited to the following: Apache Hadoop (HDFS, MapReduce), Apache Hive, Apache HCatalog, Cloudera Hue, Apache Mahout, Apache Oozie, Apache Pig, Apache Sentry, Apache Sqoop / Sqoop2, Apache Whirr, Apache Zookeeper, Apache Spark, Apache Crunch, Apache HBase, Apache Kafka, Apache Accumulo, Apache Impala (Incubating), Cloudera Search, Apache Kudu or Apache YARN services.

1.7 “End User Client” means the person who actually uses the [***].

The following definitions are hereby added to the Agreement:

1.11 “ Cloudera Online Services ” means any Cloudera Product that is provided by Cloudera as a hosted, cloud- based service, accessible to Customer through a web browser.

1.12 “ Transaction Data ” means all data that is (i) input into Cloudera Online Services or generated through the use of the Cloudera Online Services, or (ii) generated for troubleshooting and diagnostics, in each case that is transmitted to Cloudera. Transaction Data does not include Customer’s originating data that might be stored in Customer’s clusters running the Cloudera Products.

B. Section 2 of the Agreement is modified as follows:

Add the following at the end of Section 2.1 (i): “For clarity, Customer’s internal use as set forth in this Section 2.1(i) and Section 2.1(ii) below includes the use of the Cloudera Software to [***], provided that all such use is limited to licensed Nodes owned or controlled by Customer, on hardware owned or controlled by Customer, or as may be deployed by Customer in a public cloud environment. Cloudera will have no direct obligation to any End User Client, including any obligation to provide support, and

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS AND ASTERISKS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED INFORMATION.

Customer will indemnify and defend Cloudera for claims or demands against Cloudera brought by any such End User Client, excluding claims or demands for intellectual property infringement due to any Cloudera Products. Except as expressly set forth herein with respect to [***], the license grant in the preceding sentence expressly excludes any other hosting of third party data or the provision of any other products and services to third parties."

C. Section 5 of the Agreement is modified as follows:

Add the following as Sections 5.2

"5.2 Policies; Personally Identifiable Information . Customer and Cloudera will adhere to and agree to be bound by the Data Policy with respect to the handling of Transaction Data, and the Privacy Terms with respect to the handling of PII, as defined below, attached hereto as Attachment 1, as such policies and terms may be updated by the parties from time to time (the "Data Policy" and the "Privacy Terms," respectively). All Transaction Data (as defined in the Data Policy) will be handled in accordance with the provisions set forth in the Data Policy and governed exclusively by those terms. Subject to applicable law, in connection with the performance of this Addendum and Customer's use of the Cloudera Online Services: (i) Cloudera agrees that it will not require Customer to deliver to Cloudera any personally identifiable information (as defined by the National Institute of Standards and Technology) ("PII"); and (ii) Customer agrees not to deliver any PII to Cloudera; provided, however, that Customer's Account Data (as defined in the Data Policy) may include PII to the extent it is business contact information necessary to access the Service, and will be governed by the Data Policy."

2. Exhibit C-1 attached hereto is appended to Exhibit C of the Agreement to provide licensing of Cloudera Products through the amended Expiration Date.

3. Expiration Date of the Agreement is extended to March 31, 2023.

Integration; Conflict. The provisions of this Amendment 2 will govern notwithstanding anything to the contrary in the Agreement. Except as otherwise expressly provided or modified herein, the terms and conditions of the Agreement remain in full force and effect, and the Agreement and this Amendment 2 constitute the entire and exclusive agreement between the parties regarding the subject matter hereof, and supersede all proposals and prior agreements, oral or written, and all other communications.

IN WITNESS WHEREOF, the parties have caused this Amendment 2 to be executed by their duly authorized representatives.

Customer: Intel Corporation		**Cloudera, Inc.**	
Signature:	/s/ Sommer Starr	Signature:	/s/ Wayne Kimber
Printed:	Sommer Starr	Printed:	Wayne Kimber
Title:	Commodity Manager	Title:	VP Finance & PAO
Date:	17-Nov-2017	Date:	21-Nov-2017

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS AND ASTERISKS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED INFORMATION.

Exhibit C-1

RENEWAL ORDER FORM

Cloudera Product: Cloudera Enterprise Data Hub including NavOpt services, Gold Support providing 24x7 support as set forth in Exhibit A of the Agreement (list: $10,000 per Node)

Subscription Period: April 1, 2018 – March 31, 2021* (Years 5-7, with optional renewal years 8 and 9)

[***] begins October 31, 2017

Subscription Fees under this Exhibit C-1 are as follows:

Year 5 (April 1, 2018-March 31, 2019):
Node Quantity: [***]
Annual Subscription Fee: $[***]
Year 6 (April 1, 2019 – March 31, 2020)
Node Quantity: minimum [***] Nodes
Annual Subscription Fee per Node: [***]
Minimum Annual Subscription Fee: $[***] plus $[***] per Node for Nodes [***], plus $[***] for Nodes in excess of [***]
Year 7 (April 1, 2020 – March 31, 2021)
Node Quantity: minimum [***] Nodes Annual Subscription Fee per Node: $[***]
Minimum Annual Subscription Fee: $[***] plus $[***] per Node for Nodes [***], plus $[***] for Nodes in excess of [***]
OPTIONAL RENEWAL: **Years 8 and 9** (April 1, 2021 – March 31, 2023):
Annual Subscription Fee: $[***] per Node for up to [***] Nodes Node Quantity: minimum [***] Nodes
Minimum Annual Subscription Fee: $[***] plus $[***] per Node for Nodes [***]
No additional fee for actual deployments between [***] Nodes and [***] Nodes during the Subscription Period
For Nodes [***] and greater, Customer will pay an additional annual subscription fee of $[***] per Node

Payment Schedule:

Year 5:

April 1 2018	**July 1 2018**	**Oct 1 2018**	**Jan 1 2019**
[***]	[***]	[***]	[***]

Year 6*:

April 1 2019	**July 1 2019**	**Oct 1 2019**	**Jan 1 2020**
[***]	[***]	[***]	[***]

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS AND ASTERISKS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED INFORMATION.

Year 7:**

April 1 2020	**July 1 2020**	**Oct 1 2020**	**Jan 1 2021**
[***]	[***]	[***]	[***]

Optional Year 8:**

April 1 2021	**July 1 2021**	**Oct 1 2021**	**Jan 1 2022**
[***]	[***]	[***]	[***]

Optional Year 9:**

April 1 2022	**July 1 2022**	**Oct 1 2022**	**Jan 1 2023**
[***]	[***]	[***]	[***]

* plus $[***] per Node for Nodes [***], plus $[***] for Nodes in excess of [***]

** plus $[***] per Node for Nodes [***], plus $[***] for Nodes in excess of [***]

Reporting and payment for Incremental Nodes:

During Years 6 through 9, inclusive, of the Subscription Period as set forth in this Exhibit C-1, Customer may elect to add Nodes that exceed the annual minimum quantity of Nodes as set forth herein (the “Incremental Nodes”). Customer agrees to notify Cloudera of its elected use of such Incremental Nodes at time of deployment. The annual subscription fees for the Incremental Nodes will be calculated for the period commencing immediately upon the installation date of the Incremental Nodes according to the fees set forth above, pro-rated such that the Subscription Period of the Incremental Nodes will terminate on the same date as the existing Subscription Period. Cloudera will invoice Customer for the Incremental Nodes upon receipt of Customer’s Purchase Order that it has so elected, and fees will be due as set forth in the Agreement.

Professional Services and Training Discount Hold:

During the Subscription Period as set forth in this Exhibit C-1, Cloudera agrees to provide the following discounts from then-current list prices at time of order:

Training, all classes: [***]% discount from list

Professional Services (Solutions Architect, Data Scientist): [***]% discount from list, billed per day

Professional Services (Technical Account Manager/Customer Success Manager, Designated Support Engineer): [***]% discount from list, billed per FTE annum

Services list rates as of the Amendment 2 Effective Date are as follows:

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SKU	**Role**	Description	Discount	List Price
DSE-03	**Designated Support Engineer**	[***].	[***]	$250,000
CDS-CSM	**Customer Success Manger**	[***].	[***]	$100,000
PSHR-01 / PSHR-01- [***]	**Data Scientist: [***]**	[***].	[***]	$650
PSHR-03 / PSHR-03- [***]	**Principal Solutions Architect: [***]**	[***].	[***]	$500
PSHR-04 / PSHR-04- [***]	**Sr. Solutions Architect: [***]**	[***].	[***]	$450
PSHR-05 / PSHR-05- [***]	**Solutions Architect: [***]**	[***].	[***]	$400
RSA-SLVR	**Resident Architect - Silver**	[***].	[***]	$148,000
RSA-Gold	**Resident Architect - Gold**	[***].	[***]	$220,000
PSHR-09- [***]	**Sr. Services Delivery Manager: One (1) Hour**	[***].	[***]	$250

Cloudera Data Science Workbench ("CDSW") [***]:

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As of the Amendment 2 Effective Date, and during Years 5-7 (April 1, 2018 – March 31, 2021) of the Subscription Period as set forth in this Exhibit C-1, Customer [***] subscriptions to Unique Identifiers of Cloudera Data Science Workbench ("CDSW"). A "Unique Identifier" means a unique user ID and password denoted for Customer's access to and use of CDSW during the Subscription Period. Unique Identifiers may not be shared among users or used concurrently by multiple users, however, a Unique Identifier may be transferred from one individual to another if the original individual no longer requires or is no longer permitted access to or use of CDSW. During the entire duration of the Subscription Period for CDSW ("CDSW Term"), Customer must have a current valid Node license for Cloudera Enterprise Data Hub as set forth in this Exhibit C-1 ("Required License"). CDSW requires dedicated Nodes that may be in excess of the Nodes licensed under Customer's then-current subscription for Cloudera Enterprise Data Hub, in which case Customer acknowledges and agrees that must license the applicable number of Incremental Nodes under this Exhibit C-1. In the event that the Subscription Period for the Required License expires during the CDSW Term, the CDSW rights and licenses granted to Customer under this Exhibit C-1 will immediately terminate, with no right to refund or credit.

During each of Years 8 and 9 (April 1, 2021 – March 31, 2023) Customer may purchase, at its sole election and subject to the terms as otherwise set forth in the preceding paragraph, [***], due at the beginning of each of Year 8 and Year 9.

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Attachment 1

Privacy Terms

2.1 For the purposes of this Privacy section only, the following definitions apply:

(A) "Data Breach" means any unauthorized or unlawful processing, loss, disclosure, destruction, theft, or damage of any of the Personal Data.

(B) "Data Controller" is a person or entity who (either alone or jointly with others) determines the purposes for which and the manner in which Personal Data is to be processed

(C) "Data Processor" is a person or entity who processes Personal Data on behalf of a Data Controller. In the Agreement, Supplier is the Data Processor.

(D) "Data Subject" is the individual to which the Personal Data relates.

(E) "Personal Data" means any information relating to an identified or identifiable natural person of which Intel is the Data Controller and in relation to which Supplier is providing products or services under the Agreement **.** An identifiable person is one who can be identified, directly or indirectly, by reference to an identification number or to one or more factors specific to their physical, physiological, mental, economic, cultural or social identity.

(F) "Processing Country" means the country where the Personal Data is to be processed by the Supplier. Unless otherwise agreed to in writing by Intel, it is the country where the Supplier is located as specified in the Agreement.

(G) "Processing of Personal Data" means any operation or set of operations which is performed upon Personal Data, whether or not by automated means, including but not limited to collection, recording, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, deleting or destruction.

(H) "Supplier" means Cloudera, Inc.

2.2 Supplier may collect and process the Personal Data only to the extent, and in such manner, as is necessary to provide the products or services under the Agreement and in accordance with Intel's instructions from time to time. Supplier will not collect or process the Personal Data for any other purpose.

2.3 Supplier must promptly comply with any request from Intel requiring Supplier to amend, transfer or delete the Personal Data. In any event, upon written request from Intel **,** Supplier must permanently delete Personal Data within 30 days after the Personal Data is no longer being actively used in fulfilling Supplier's obligations to Intel under the Agreement.

2.4 Transfer, Disclosure, or Processing of Personal Data

It is the parties' expectation that Personal Data that will be collected and processed under this Agreement will be limited to business contact information necessary for Intel employees to access the service,

(A) Supplier must not, except at the request of Intel, with Intel's prior written consent, or as otherwise expressly permitted in this Section:

1. transfer the Personal Data outside the Processing Country; or

2. disclose the Personal Data to anyone but Intel; or

3. subcontract or assign the Processing of Personal Data

(B) Notwithstanding the foregoing, unless otherwise advised by Intel, Supplier may transfer Personal Data consisting solely of business emails, billing and account information, addresses or phone numbers outside the Processing Country, for the sole purpose of performing its obligations under the Agreement (including facilitating of invoicing and billing under the Agreement).

2.5 If Supplier receives any communication relating to the Processing of the Personal Data, Supplier must immediately notify Intel, and must fully cooperate and assist Intel in addressing the communication.

2.6 Supplier must take appropriate physical, technical and administrative security measures to protect the Personal Data against any Data Breach. Supplier must notify Intel immediately if Supplier becomes aware of any Data Breach and fully cooperate with Intel in investigating the Data Breach, including, without limitation, making available to Intel all relevant records, logs, files, data reporting and other materials related to the Data Breach required to comply with applicable law, regulation, industry standards or as otherwise required by Intel.

2.7 Supplier's failure to comply with any of the provisions of this Section is a material breach of the Agreement, and Intel may terminate the Agreement effective immediately upon written notice to Supplier.

CLOUDERA DATA POLICY

This Data Policy (the "Policy") describes Cloudera's policy for handling, storing, and otherwise treating certain types of data of Cloudera's customers (each, a "Customer"), including data associated with individual users and employees of Customer organizations, in each case pursuant to a Customer Agreement (as defined below). "Cloudera" means Cloudera, Inc. and its subsidiaries and affiliates.

Additional policies that apply to specific Cloudera Products and Services can be found at the end of this Policy, in the section entitled "Service-Specific Terms."

OVERVIEW

Cloudera collects information that a Customer or other data sources send to Cloudera as part of such Customer's use of Cloudera Products and Services. This data is addressed in three categories, "Transaction Data", "Account Data" and "Personal Data", each as defined below.

TRANSACTION DATA AND ACCOUNT DATA

Security

Cloudera understands the sensitive nature of the data that Customer or Customer's organization may provide while using Cloudera Products and Services. Cloudera will maintain commercially reasonable administrative, physical and technical safeguards designed for the protection, confidentiality and integrity of Customer's Transaction Data and Account Data.

Data Use by Cloudera

Access . Cloudera places strict controls over its employees' access to Customer's Transaction Data and Account Data that resides in the Cloudera Products and Services, and is committed to ensuring that Customer's Transaction Data and Account Data is not used by anyone who should not have access to it. The operation of the Cloudera Products and Services requires that some employees have access to Customer systems which store and process Customer's Transaction Data and Account Data. For example, in order to diagnose a problem Customer is having with Cloudera Products and Services, the Cloudera support team may need to access Customer's Transaction
Data. These employees are prohibited from using these permissions to view Customer's Transaction Data unless it is necessary to do so.

Ownership . As between Cloudera and Customer, Customer or its licensors own all right, title, and interest in and to the Transaction Data and Account Data. Cloudera obtains no ownership rights under this Agreement from Customer or its licensors to any Transaction Data or Account Data.

Use of Transaction Data . Cloudera will treat Transaction Data as confidential and will use it only to: (i) facilitate operation of the Cloudera Products and Services; (ii) enhance the use of the Cloudera Products and Services and its related web pages; (iii) perform internal tracking to improve Cloudera Products and Services; (iv) analyze the extent to which Customers use Cloudera Products and Services; (v) enable Cloudera to contact its Customers; (vi) process, bill and invoice Customer's transactions for Cloudera Products and Services usage; (vii) make backups in order to prevent data loss; and (viii) comply with the law or a binding order of a governmental body. This permission includes allowing us to use third-party service providers in the operation and administration of Cloudera Products and Services and the rights granted to us are extended to these third parties to the degree necessary in order for Cloudera Products and Services to be provided. The Privacy Terms do not apply to Transaction Data.

Use of Account Data . To the extent the Account Data constitute Personal Data (as defined in the Privacy Terms) Cloudera will only use such Account Data in accordance with the Privacy Terms, and Customer consents to such usage.

Feedback. If any Customer users provide Cloudera with any feedback, support tickets, reported defects, usability enhancements, feature requests or suggestions regarding Cloudera Products and Services, Customer grants Cloudera an unlimited, irrevocable, perpetual, free license to use any such feedback or suggestions for any purpose without any obligation to Customer.

Retention of Transaction Data and Account Data

Data collected by Cloudera as part of diagnostic bundles will be retained for a period of 12 months. All other Transaction Data and Account Data may be retained no longer than as permitted by governing law, but in no event longer than for the life of the related Cloudera product + 10 years.

Incident Management and Response

In the event of a security breach involving Cloudera Products and Services, Cloudera will promptly notify each affected Customer of any unauthorized access to any of such Customer's Transaction Data or Account Data that was stored in Cloudera Products and Services. Cloudera has internal incident management procedures in place to handle such an event.

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Product Security Practices

New features, functionality, and design changes go through a security review process facilitated by Cloudera's security team. The security team works closely with development teams to resolve any additional security concerns that may arise during development.

PERSONAL DATA

The Privacy Terms in this Attachment are hereby incorporated into this document and include important terms regarding Cloudera's handling of Personal Data. The sections above relating to Incident Management and Response and Product Security Practices also apply to Personal Data.

CUSTOMER RESPONSIBILITIES

Customer Account and Account Data

To access certain Cloudera Online Services, Customer may be asked to create a Cloudera account associated with a valid e-mail address (a "Customer Account"). Customer may only create one account per email address. Customer is responsible for: (i) maintaining the confidentiality of the Account Data, (ii) monitoring and controlling which end users have access to the Customer Account; and (iii) all activities that occur under the Customer Account, regardless of whether the activities are undertaken by Customer, Customer's employees or a third party (including Customer's contractors or agents). Except to the extent caused by Cloudera's breach of this Data Policy and the Privacy Terms, Cloudera and its Affiliates are not responsible for unauthorized access to the Customer Account. Customer will contact Cloudera immediately if Customer believes an unauthorized third party may be using the Customer Account or if Customer's Account Information is lost or stolen.

Acceptable Use

Customer must not: (i) use, or encourage, promote, facilitate or instruct others to use, Cloudera Products and Services for any illegal, harmful or offensive use, or to transmit, store, display, distribute or otherwise make available content that is illegal, harmful, or offensive; (ii) use Cloudera Products and Services to violate the security or integrity of any network, computer or communications system, software application, or network or computing device; (iii) make network connections to any users, hosts, or networks unless Customer has permission to communicate with them; (iv) use Cloudera Products and Services to transmit spam, bulk or unsolicited communications; or (v) use Cloudera Products and Services to collect and store personally identifiable information about any person unless specifically authorized by such person.

Transaction Data, Account Data and Personal Data

Customer is solely responsible for the creation, operation and maintenance of Transaction Data, Account Data and Personal Data (unless such Personal Data is collected or transferred to Cloudera for processing). For example, Customer is solely responsible for:

- the technical operation of Cloudera Products and Services, including ensuring that calls Customer makes to any Cloudera Online Service are compatible with then-current APIs for that Cloudera Online Service;
- compliance with the Acceptable Use provisions herein;

- to the extent Transaction Data, Account Data and Personal Data are under Customer’s control, compliance with all applicable laws;
- any claims relating to Transaction Data, Account Data and Personal Data;
- anonymizing data to the extent Customer deems it reasonable or prudent to do so; and
- properly handling and processing notices sent to Customer (or any of its affiliates) by any person claiming Customer’s data violates such person’s rights, including notices pursuant to the Digital Millennium Copyright Act.

Customer agrees that its Transactional Data, Account Data and Personal Data will not include information regulated under the International Traffic in Arms Regulations (U.S. government regulations addressing defense- related articles and services).

Customer agrees not to upload, post or otherwise transmit to Cloudera any Transaction Data that: (a) is inaccurate, harmful, obscene, pornographic, defamatory, racist, violent, offensive, harassing, or otherwise objectionable; (b) includes unauthorized disclosure of personally identifiable information or other confidential information; (c) violates or infringes any third party intellectual property rights; or (d) contains software viruses or any other computer code, files or programs designed to interrupt, destroy or limit the functionality of any computer software or hardware or telecommunications equipment. Cloudera reserves the right to edit or remove Transaction Data that violates this Policy.

By providing Transaction Data, Customer represents and warrants to Cloudera that Customer owns or otherwise possesses all intellectual property rights and other rights necessary to provide such Transaction Data and to permit others to make use of such Transaction Data.

Security and Backup

Customer is responsible for taking its own steps to maintain appropriate security, protection and backup of Transactional Data, Account Data and Personal Data, which may include the use of encryption technology or anonymization to protect such data from unauthorized access.

Customer Data

Cloudera Products and Services that store or process Customer Data are either located on a third-party hosting site or on Customer’s own servers. As such, Cloudera has no liabilities or obligations with respect to Customer Data under this Data Policy.

DEFINITIONS

“Account Data” means information about Customer that Customer provides to Cloudera in connection with the creation or administration of its Cloudera account. For example, Account Data includes names, user names, phone numbers, email addresses and billing information associated with Customer’s Cloudera account.

"Cloudera Products and Services" means any of Cloudera’s products and software to which Customer may have subscribed under the terms of a Customer Agreement, including but not limited to Cloudera Manager, Cloudera Enterprise, Cloudera Live, Cloudera Express, Cloudera Director, any Cloudera Online Services, any trial software, and any software related to the foregoing.

"Customer Agreement" means the separate agreement between Customer and Cloudera governing Customer's use of the Cloudera Products and Services.

"Customer Data" means any of Customer's originating data that might be stored in nodes and accessed by Cloudera's software or other third-party software.

"Personal Data" means Personal Data as defined in the Privacy Terms.

"Privacy Terms" means the privacy terms included in this Attachment

"Transaction Data" means all data that is (i) input into Cloudera Products and Services by Customer or its end users, (ii) generated by Cloudera's systems as a result of Customer's or its end users' use of the Cloudera Products and Services, or (iii) data that is generated for troubleshooting and diagnostics, in each case that is transmitted to Cloudera. Transaction Data does not include Customer Data.

In the event of a conflict between this Policy and the terms of the applicable Customer Agreement, the terms and conditions of this Policy apply, but only to the extent of such conflict.

SERVICE-SPECIFIC TERMS

Cloudera Navigator Optimizer and Workload Analytics

Data Use . Cloudera's Navigator Optimizer service ("Optimizer") and Workload Analytics service ("Workload Analytics") do not collect or store any Personal Data or Customer Data. These services may collect and/or store certain types of Transaction Data such as Customer's queries or workload information ("Analytics Data"). While Analytics Data is confidential information and will be protected pursuant to the provisions in this policy that apply to Transaction Data, Optimizer and Workload Analytics are not databases of record for the storage of Analytics Data. Retention of this Analytics Data is not Cloudera's responsibility.

Availability . Cloudera is committed to making Optimizer and Workload Analytics highly-available services that Customers can count on. To the extent feasible, Cloudera's infrastructure runs on systems that are fault-tolerant, for failures of individual servers. Cloudera's operations team tests disaster-recovery measures regularly and staffs a team to quickly resolve unexpected incidents. However, at this time Cloudera makes no uptime or availability guarantees with respect to Optimizer or Workload Analytics or retention of Analytics Data.

Cloudera will host Optimizer and Workload Analytics only in the United States.

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Exhibit 10.19

AMENDMENT NO. 2
TO COLLABORATION AND OPTIMIZATION AGREEMENT

This Amendment No. 2 to Collaboration and Optimization Agreement (this "Amendment") is made and entered into as of the last dated signature below ("Amendment Effective Date") by and between Intel Corporation, a Delaware corporation ("Intel"), and Cloudera, Inc., a Delaware corporation.

RECITALS

WHEREAS, Intel and Cloudera entered into a Collaboration and Optimization Agreement, dated as of March 21, 2014 which was amended and restated on March 21, 2017 (the "Collaboration Agreement");

WHEREAS, the parties desire to amend the Collaboration Agreement as set forth herein;

NOW, THEREFORE, in consideration of the mutual promises set forth below and for other consideration, the adequacy and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. **AMENDMENT OF COLLABORATION AGREEMENT .**

1.1 Amendment of Section 2.3 . Section 2.3 is hereby amended to add section 2.3(c), which reads as follows: "(c) The parties agree to engage in the additional Collaboration activities as described in Exhibit B to this Agreement."

1.2 Amendment of Section 6.2 . Section 6.2 is hereby replaced in its entirety with the following:

"As of the Amendment Effective Date, pursuant to the Joint Roadmap, Intel has provided Cloudera with the following at no charge for Cloudera's use to perform its development obligations as set forth in the Joint Roadmap: (a) mutually agreed next-generation development platforms, pursuant to Intel's standard pre-release licensing terms and (b) [***] servers configured with the next generation of Intel architecture. [***]. Intel will provide the foregoing items at no charge to Cloudera, subject to standard Intel supply terms, but Cloudera will be responsible for all associated data center costs, maintenance costs, and other costs associated with housing, insuring, operating, and supporting such platforms and servers."

1.3 Amendment of Section 11.1 . Section 11.1 is hereby amended to change the first sentence to read: "This Agreement will commence on the Effective Date, and, unless terminated earlier as set forth herein, will expire March 21, 2021 ("Initial Term")."

1.4 Addition of Exhibit B . Exhibit B attached to this Amendment is hereby added to the Agreement as a new exhibit.

2. **GENERAL PROVISIONS .**

2.1 Full Force and Effect . Except as expressly modified by this Amendment, the terms of the Collaboration Agreement shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their duly authorized representatives as of the Amendment Effective Date.

INTEL CORPORATION		CLOUDERA, INC.	
Signature:	/s/ Ron Kasabian	Signature:	/s/ Marque Chambliss
Printed:	Ron Kasabian	Printed:	Marque Chambliss
Title:	Vice President, Data Center Group	Title:	Senior Corporate Counsel
Date:	February 1, 2018	Date:	January 31, 2018

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Exhibit B
Collaboration Activities

1. **[***] :** Cloudera agrees to collaborate with Intel on its [***]. Cloudera agrees to collaborate with Intel to identify potential customers and position [***] solutions into those accounts. Within two weeks of the Amendment Effective Date, representatives from the Cloudera and Intel teams will collaborate to develop an initial strategy for the alignment of the [***] and the [***] leading to the development of a joint business plan and supporting reference architectures .

2. **Go to Market :** During the two week period after the Amendment Effective Date, the Alliance Managers will meet to discuss a co-marketing plan to define go-to-market efforts to support sales in [***]. The go-to-market plan will be revised at least annually by the Alliance Managers and reviewed by the parties during each Quarterly Business Reviews (QBR) through the term of this Agreement.

3. **Time to Market Technology Initiatives :** The parties have identified time-to-market technology initiatives (TTM Technologies) for the [***] following the Amendment Effective Date listed in Table 1, below. The parties will validate that the TTM Technologies provide economic value to each party before engaging in detailed planning and will remove or replace any TTM Technologies which do not provide economic value to each party. The parties will endeavor to include [***], and other relevant product and business planning items in the assessment of economic value for each TTM Technology. If the parties are unable to agree to a TTM Technology based upon economic value, then the parties will each escalate the disagreement to the QBR for appropriate resolution. A party seeking to replace a TTM Technology will provide commercially reasonable justification demonstrating the economic value assessment to the other party.

The Alliance Managers will then meet regularly during the implementation of the TTM Technologies, but no less than annually, to identify new TTM Technologies for the following two years through the term of this Amendment. Those technologies listed for [***] are initial concepts which will be reviewed and verified for economic value for each party. The Alliance Managers will provide the TTM Technologies to the joint engineering team, which will endeavor to designate engineering leads for each of the projects. The joint engineering team or designated engineering leads will collaborate to iterate on and deliver, [***], an initial plan for TTM Technology implementation (TTM Implementation Plan), including target intercept date, target release and distribution dates, target milestones and deliverables. The TTM Technologies plan will be reviewed during each Quarterly Business Reviews (QBR) between the parties and the parties may modify the TTM Technologies and their respective priorities in a QBR, which will then be reflected in a revised TTM Technology Plan [***] of the changes. A failure by Cloudera to meet the goals set forth in the TTM Implementation Plan will be subject to the process provided in Section 2.3(b) of this Agreement.

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Table 1. TTM Technologies:

	Top TTM Technologies	2017	2018	2019
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]

Exhibit 10.20

Amendment 3 to the Enterprise Subscription Agreement

This Amendment 3 ("Amendment 3") is entered into as of March 30, 2018 by and between Cloudera, Inc., a Delaware corporation, with offices at 395 Page Mill Road, Palo Alto, CA 94306 ("Cloudera") and Intel Corporation and its Affiliates, a Delaware corporation, with offices at 2200 Mission College Boulevard, Santa Clara, CA 94504 ("Customer") and amends that certain Amendment 2, dated November 11th, 2017 ("Amendment 2") to the Enterprise Subscription Agreement, including all prior amendments and exhibits thereto, entered into by and between the parties dated April 25, 2014 (collectively, the "Agreement").

The parties hereby agree to amend Amendment 2 as follows:

Section 3 is amended to extend the Agreement through April 23, 2023.

Exhibit C-1 of Amendment 2 is hereby modified such that the Subscription Period will be April 24, 2018 – April 23, 2021 (Years 5-7).

Optional annual Subscription Periods for Years 8 and 9, if elected by Customer, will commence on April 24, 2021 and April 24, 2022, respectively.

Integration; Conflict. The provisions of this Amendment 3 will govern notwithstanding anything to the contrary in the Agreement. Except as otherwise expressly provided or modified herein, the terms and conditions of the Agreement remain in full force and effect, and the Agreement and this Amendment constitute the entire and exclusive agreement between the parties regarding the subject matter hereof, and supersede all proposals and prior agreements, oral or written, and all other communications.

IN WITNESS WHEREOF, the parties have caused this Amendment 3 to be executed by their duly authorized representatives.

Customer: Intel Corporation	**Cloudera, Inc.**
Signature: /s/ Sommer Starr	Signature: /s/ Priya Jain
Printed: Sommer Starr	Printed: Priya Jain
Title: Commodity Manager	Title: Principal Accounting Officer
Date: 30-Mar-2018	Date: 30-Mar-2018

Exhibit 10.21

SEVERANCE AND CHANGE IN CONTROL AGREEMENT

This Severance and Change in Control Agreement, including the Executive Addendum attached hereto (collectively, the " **Agreement** "), is entered into as of _________ __, 201_ (the " **Effective Date** ") by and between ________________ (the " **Executive** ") and Cloudera, Inc., a Delaware corporation (the " **Company** ").

1. TERM OF AGREEMENT.

This Agreement shall terminate on the first to occur of (i) the date the Executive's employment with the Company terminates for a reason other than a Qualifying Termination as described in Section 4(k) or (ii) the date the Company has met all of its obligations under this Agreement following a termination of the Executive's employment with the Company for a reason described in Section 4(k) .

2. SEVERANCE BENEFIT.

(a) **Other than During a Change in Control Period** .

(i) Severance Payments . If the Executive is subject to a Qualifying Termination other than during a Change in Control Period, then, subject to Section 3 below, the Company shall pay the Executive (I) the Severance Multiplier (Other than During a Change in Control Period) as specified and defined in the applicable Executive Addendum multiplied by the Executive's base salary at the annual rate in effect when the Qualifying Termination occurred and (II) an amount equal to the product of (y) the annual bonus target to which the Executive would have been entitled (calculated as if all applicable bonus targets were achieved) for the bonus period in which the Qualifying Termination occurred (" **Final Period** ") and (z) a fraction, the numerator of which is the number of days for which the Executive was employed by the Company during the Final Period and the denominator of which is the total number of calendar days in the Final Period (the " **Prorated Bonus** "). To the extent the foregoing amount is payable under Section 2(b) and/or included as Accrued Compensation and Expenses and/or Accrued Benefits (as described in Section 2(e)), it will not be paid under this Section 2(a) . The Executive will receive his or her severance payment pursuant this Section 2(a)(i) in a cash lump-sum which will be made on or before the sixtieth (60^{th}) day following the Separation, provided that the following have already occurred:

(1) the Company's receipt of the Executive's executed General Release (as described in Section 2(d)); and

(2) the expiration of any rescission period applicable to the Executive's executed General Release.

(ii) Health Care Benefit . If the Executive is subject to a Qualifying Termination other than during a Change in Control Period and satisfies both the conditions set forth in Section 2(a)(i)(1) and Section 2(a)(i)(2) above to receive cash severance payments, and if the Executive elects to continue his or her health insurance coverage under the Consolidated Omnibus Budget Reconciliation Act (" **COBRA** ") following the termination of his or her employment, then the Company shall pay the Executive's monthly premium under COBRA until the earliest of (1) the COBRA Continuation Period (Other than During a Change in Control Period) as specified and defined in the Executive

Addendum; (2) the date when the Executive receives similar coverage with a new employer or (3) the expiration of the Executive's continuation coverage under COBRA.

(iii) Equity. If the Executive is subject to a Qualifying Termination other than during a Change in Control Period and satisfies both the conditions set forth in Section 2(a)(i)(1) and Section 2(a)(i)(2) above, then, subject to Section 3 below, Executive will be permitted to exercise any vested shares subject to Equity Awards (as defined below) that are nonstatutory stock options to purchase shares of Company common stock until the Post-Termination Exercise Date that is specified and defined in the Executive Addendum; *provided* that such post-termination exercise period shall end upon the consummation of a Change in Control, unless such nonstatutory stock options are assumed in the Change in Control; *provided*, *further*, that in no event shall such post-termination exercise period exceed the expiration of the maximum term of the nonstatutory stock options.

(b) **During a Change in Control Period.**

(i) Severance Payments. If the Executive is subject to a Qualifying Termination during a Change in Control Period, then, subject to Section 3 below, the Company shall pay the Executive (I) the Severance Multiplier (During a Change in Control Period) as specified and defined in the applicable Executive Addendum multiplied by the sum of (w) the Executive's base salary at the annual rate in effect when the Qualifying Termination occurred or when the Change in Control occurred, whichever is greater, plus (x) the Executive's annual target bonus for the fiscal year in which the Qualifying Termination occurred or when the Change in Control occurred, whichever is greater (in each case calculated as if all applicable bonus targets were achieved) and (II) the Prorated Bonus. To the extent the foregoing amount is payable under Section 2(a) and/or included as Accrued Compensation and Expenses and/or Accrued Benefits (as described in Section 2(e)), it will not be paid under this Section 2(b). The Executive will receive his or her severance payment pursuant this Section 2(b)(i) in a cash lump-sum which will be made on the sixtieth (60^{th}) day following the Separation, provided that the following have already occurred:

(1) the Company's receipt of the Executive's executed General Release (as described in Section 2(d)); and

(2) the expiration of any rescission period applicable to the Executive's executed General Release.

(ii) Health Care Benefit. If the Executive is subject to a Qualifying Termination and satisfies both the conditions set forth in Subsection 2(b)(i)(1) and Subsection 2(b)(i)(2) above to receive cash severance payments, and if the Executive elects to continue his or her health insurance coverage under COBRA following the termination of his or her employment, then the Company shall pay the Executive's monthly premium under COBRA until the earliest of (1) the COBRA Continuation Period (During a Change in Control Period) as specified and defined in the Executive Addendum; (2) the date when the Executive receives similar coverage with a new employer or (3) the expiration of the Executive's continuation coverage under COBRA.

(iii) Equity. If the Executive is subject to a Qualifying Termination during a Change in Control Period and satisfies both the conditions set forth in Section 2(b)(i)(1) and Section 2(b)(i)(2) above, then, subject to Section 3 below, (a) each of Executive's then outstanding unvested Equity Awards, including awards that would otherwise vest only upon satisfaction of performance criteria, shall accelerate and become vested and exercisable with respect to the Equity Acceleration as specified and defined in the Executive Addendum and (b) Executive will be permitted to exercise any vested shares subject to Equity Awards that are nonstatutory stock options to purchase shares of Company common stock (after giving effect to the foregoing acceleration of vesting) until the Post-Termination Exercise Date that is specified and defined in the Executive Addendum; *provided* that such post-termination exercise period shall end upon the consummation of a Change in Control, unless such nonstatutory stock options are assumed in the Change in Control; *provided*, *further*, that in no event shall such post-termination exercise period exceed the expiration of the maximum term of the nonstatutory stock options. Subject to Section 2(d) and Section 3, the accelerated vesting described above shall be effective as of the Qualifying Termination. With respect to awards that would otherwise vest only upon satisfaction of performance criteria, the Equity Acceleration shall apply at target level of such performance criteria.

(c) **Special Cash Payments in Lieu of COBRA Premiums.** Notwithstanding Section 2(a)(ii) or Section 2(b)(ii) above, if the Executive is eligible for, and the Company determines, in its sole discretion, that it cannot pay, the COBRA premiums without a substantial risk of violating applicable law (including Section 2716 of the Public Health Service Act) which will cause significant financial harm to the Company, the Company instead shall pay to the Executive, on the first day of each calendar month, a fully taxable cash payment equal to the applicable COBRA premiums for that month (including premiums for the Executive and the Executive's eligible dependents who have elected and remain enrolled in such COBRA coverage), subject to applicable tax withholdings (such amount, the " **Special Cash Payment** "), for the remainder of the period the Executive remains eligible for the benefit under Section 2(a)(ii) or Section 2(b)(ii) above. The Executive may, but is not obligated to, use such Special Cash Payments toward the cost of COBRA premiums. In the event the Company opts for the Special Cash Payments, then on the sixtieth (60^{th}) day following the Separation, the Company will make the first payment to the Executive under this Section 2(c) , in a lump sum, equal to the aggregate Special Cash Payments that the Company would have paid through such date had the Special Cash Payments commenced on the first day of the first month following the Separation through such sixtieth (60^{th}) day, with the balance of the Special Cash Payments paid monthly thereafter.

(d) **General Release** . Any other provision of this Agreement notwithstanding, Section 2(a) , Section 2(b) , and Section 2(c) above shall not apply unless the Executive (i) has executed a general release (in a form prescribed by the Company and provided to other executives similarly situated) (" **General Release** ") of all known and unknown claims that he or she may then have against the Company or persons affiliated with the Company and such release has become effective and (ii) has agreed not to prosecute any legal action or other proceeding based upon any of such claims. The General Release must be in the form prescribed by the Company, without alterations. The Company will deliver the form to the Executive within thirty (30) days after the Executive's Separation. The Executive must execute and return the General Release within the time period specified in the form. The Executive shall not be required to release any claims arising under (a) any indemnification agreement between the Executive and the Company or (b) any rights to indemnification, advancement of expenses or repayment arising under the Company's Amended and Restated Certificate of Incorporation, the Company's Amended and Restated Bylaws or the indemnification provisions of applicable State statutes, in each case as currently in effect or as subsequently amended.

(e) **Accrued Compensation and Benefits** . In connection with any termination of employment prior to, upon or following a Change in Control (whether or not a Qualifying Termination), the Company shall pay Executive's earned but unpaid base salary and other vested but unpaid cash entitlements for the period through and including the termination of employment, including unused earned vacation pay and unreimbursed documented business expenses incurred by Executive through and including the date of termination (collectively " **Accrued Compensation and Expenses** "), as required by law and the applicable Company plan or policy. In addition, Executive shall be entitled to any other vested benefits earned by Executive for the period through and including the termination date of Executive's employment under any other employee benefit plans and arrangements maintained by the Company, in accordance with the terms of such plans and arrangements, except as modified herein (collectively " **Accrued Benefits** "). Any Accrued Compensation and Expenses to which the Executive is entitled shall be paid to the Executive in cash as soon as administratively practicable after the termination, and, in any event, no later than two and one-half (2-1/2) months after the end of the taxable year of the Executive in which the termination occurs. Any Accrued Benefits to which the Executive is entitled shall be paid to the Executive as provided in the relevant plans and arrangement.

3. COVENANTS.

(a) **Non-Competition** . The Executive agrees that, during his or her employment with the Company, he or she shall not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company.

(b) **Non-Solicitation** . The Executive agrees that, during his or her employment with the Company and for a one (1) year period thereafter, her or she will not directly or indirectly solicit away employees or consultants of the Company for his or her own benefit or for the benefit of any other person or entity, nor will the Executive encourage or assist others to do so.

(c) **Cooperation and Non-Disparagement** . The Executive agrees that, during the six-month period following his or her cessation of employment, he or she shall cooperate with the Company in every reasonable respect and shall use his or her best efforts to assist the Company with the transition of Executive's duties to his or her successor. The Executive further agrees that, during this six-month period, he or she shall not in any way or by any means disparage the Company, the members of the Board or the Company's officers and employees.

(d) This Section 3 shall in no manner limit obligations of the Executive under any other agreement between the Company and the Executive in any manner; provided, however, that to the extent the terms of this Section 3 directly conflict with the terms of any such agreement, the agreement containing the most Company-favorable terms that are enforceable shall govern.

4. DEFINITIONS.

(a) " **Board** " means the Company's Board of Directors.

(b) " **Cause** " means (i) the Executive has been convicted of, or has pleaded guilty or nolo contendere to, any felony or crime involving moral turpitude, (ii) the Executive has engaged in willful misconduct which is injurious to the Company or materially failed or refused to perform the material duties lawfully and reasonably assigned to the Executive or has performed such material duties with gross negligence or has breached any material term or condition of this Agreement, the Executive's Employment, Confidential Information and Intellectual Property Assignment Agreement with the Company or any other material agreement with the Company, in any case after written notice by the Company of such misconduct, performance issue, gross negligence or breach of terms or conditions and an opportunity to cure within thirty (30) days of such written notice thereof from the Company, unless such misconduct, nonperformance, gross negligence or breach is, by its nature, not curable, or (iii) the Executive has committed any act of fraud, theft, embezzlement, misappropriation of funds, breach of fiduciary duty or other willful act of material dishonesty against the Company that results in material harm to the Company. Cause also shall have the meaning as may be set forth in the Executive Addendum.

(c) " **Code** " means the Internal Revenue Code of 1986, as amended.

(d) " **Change in Control** " means the occurrence of any of the following events: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities; or (ii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; or (iii) the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; provided that the event also qualifies as a change in control under U.S. Treasury Regulation 1.409A-3(i)(5)(v) or 1.409A-3(i)(5)(vii).

(e) " **Change in Control Period** " means the period commencing three (3) months prior to a Change in Control (only if after a Potential Change in Control) and ending twelve (12) months following a Change in Control.

(f) " **Disability** " means a physical or mental incapacity or disability as a result of which Executive becomes unable to perform the essential functions of Executive's job at the Company (if appropriate, with reasonable accommodation) for a continuous period of ninety (90) days or for an aggregate of one-hundred twenty (120) days in any consecutive twelve (12) month period.

(g) " **Equity Awards** " means all options to purchase shares of Company common stock as well as any and all other stock-based awards granted to the Executive, including but not limited to stock bonus awards, restricted stock, restricted stock units (" **RSUs** ") or stock appreciation rights.

(h) “ **Exchange Act** ” means the Securities Exchange Act of 1934, as amended

(i) “ **Good Reason** ” means a cessation of the Executive’s employment as a result of the Executive’s resignation within twelve (12) months after the occurrence of one or more of the following without the Executive’s consent: (i) a reduction of more than 10% in Executive’s base salary as an employee of the Company, except to the extent that the Company implements an equal percentage reduction applicable to all executive officers and management personnel; (ii) a material reduction in the Executive’s duties, responsibilities or authority at the Company; (iii) a change in the geographic location at which Executive must perform services which results in an increase in the one-way commute of Executive by more than 50 miles; (iv) a successor of the Company as set forth in Section 5(a) hereof does not assume this Agreement; or (v) as specified in the Executive Addendum. A resignation for Good Reason will not be deemed to have occurred unless the Executive gives the Company written notice of the condition within ninety (90) days after the condition comes into existence and the Company fails to remedy the condition within thirty (30) days after receiving the Executive’s written notice.

(j) “ **Potential Change in Control** ” means the date of execution of a definitive agreement whereby the Company will consummate a Change in Control if such transaction is consummated.

(k) “ **Qualifying Termination** ” means a Separation resulting from (i) a termination by the Company of the Executive’s employment for any reason other than Cause, or (ii) a voluntarily resignation by the Executive of his or her employment for Good Reason. Termination by Disability will not constitute a Qualifying Termination.

(l) “ **Separation** ” means a “ *separation from service* ,” as defined in the regulations under Section 409A of the Code.

5. SUCCESSORS.

(a) **Company’s Successors** . The Company shall require any successor (whether direct or indirect and whether by purchase, lease, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company’s business and/or assets, by an agreement in substance and form satisfactory to the Executive, to assume this Agreement and to agree expressly to perform this Agreement in the same manner and to the same extent as the Company would be required to perform it in the absence of a succession. For all purposes under this Agreement, the term “ **Company** ” shall include any successor to the Company’s business and/or assets or which becomes bound by this Agreement by operation of law.

(b) **Executive’s Successors** . This Agreement and all rights of the Executive hereunder shall inure to the benefit of, and be enforceable by, the Executive’s personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

6. GOLDEN PARACHUTE TAXES.

(a) **Best After-Tax Result** . In the event that any payment or benefit received or to be received by Executive pursuant to this Agreement or otherwise (“ **Payments** ”) would (i) constitute a “parachute payment” within the meaning of Section 280G of the Code and (ii) but for this subsection (a), be subject to the excise tax imposed by Section 4999 of the Code, any successor provisions, or any comparable federal, state, local or foreign excise tax (“ **Excise Tax** ”), then, subject to the provisions of Section 6(b) hereof, such Payments shall be either (A) provided in full pursuant to the terms of this Agreement or any other applicable agreement, or (B) provided as to such lesser extent which would result in no portion of such Payments being subject to the Excise Tax (“ **Reduced Amount** ”), whichever of the foregoing amounts, taking into account the applicable federal, state, local and foreign income, employment and other taxes and the Excise Tax (including, without limitation, any interest or penalties on such taxes), results in the receipt by Executive, on an after-tax basis, of the greatest amount of payments and benefits provided for hereunder or otherwise, notwithstanding that all or some portion of such Payments may be subject to the Excise Tax. Unless the Company and Executive otherwise agree in writing, any determination required under this Section shall be made by independent tax counsel designated by the Company and reasonably acceptable to Executive (“ **Independent Tax Counsel** ”), whose determination shall be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required under this Section 6(a) , Independent Tax Counsel may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code; provided that Independent Tax Counsel shall assume that Executive pays all taxes at the highest marginal rate. The Company and Executive shall furnish to Independent Tax Counsel such information and documents as Independent Tax Counsel may reasonably request in order to make a determination under this Section. The Company shall bear all costs that Independent Tax Counsel may reasonably incur in connection with any calculations contemplated by this Section. In the event that Section 6(a)(ii)(B) above applies, then based on the information provided to Executive and the Company by Independent Tax Counsel, Executive may, in Executive's sole discretion and within 30 days of the date on which Executive is provided with the information prepared by Independent Tax Counsel, determine which and how much of the Payments (including the accelerated vesting of equity compensation awards) to be otherwise received by Executive shall be eliminated or reduced (as long as after such determination the value (as calculated by Independent Tax Counsel in accordance with the provisions of Sections 280G and 4999 of the Code) of the amounts payable or distributable to Executive equals the Reduced Amount). If the Internal Revenue Service (the " **IRS** ") determines that any Payment is subject to the Excise Tax, then Section 6(b) hereof shall apply, and the enforcement of Section 6(b) shall be the exclusive remedy to the Company.

(b) **Adjustments** . If, notwithstanding any reduction described in Section 6(a) hereof (or in the absence of any such reduction), the IRS determines that Executive is liable for the Excise Tax as a result of the receipt of one or more Payments, then Executive shall be obligated to surrender or pay back to the Company, within 120 days after a final IRS determination, an amount of such payments or benefits equal to the " **Repayment Amount** ." The Repayment Amount with respect to such Payments shall be the smallest such amount, if any, as shall be required to be surrendered or paid to the Company so that Executive's net proceeds with respect to such Payments (after taking into account the payment of the Excise Tax imposed on such Payments) shall be maximized. Notwithstanding the foregoing, the Repayment Amount with respect to such Payments shall be zero if a Repayment Amount of more than zero would not eliminate the Excise Tax imposed on such Payments or if a Repayment Amount of more than zero would not maximize the net amount received by Executive from the Payments. If the Excise Tax is not eliminated pursuant to this Section 6(b) , Executive shall pay the Excise Tax.

7. MISCELLANEOUS PROVISIONS.

(a) **Section 409A** . For purposes of Section 409A of the Code, if the Company determines that Executive is a " *specified employee* " under Code Section 409A(a)(2)(B)(i) at the time of a Separation, then (i) the severance benefits under Section 2 , to the extent subject to Code Section 409A, will commence during the seventh month after the Executive's Separation and (ii) will be paid in a lump sum on the earliest practicable date permitted by Section 409A(a)(2) of the Code. Any termination of Executive's employment is intended to constitute a Separation from Service and will be determined consistent with the rules relating to a " *separation from service* " as such term is defined in Treasury Regulation Section 1.409A-1. It is intended that each installment of the payments provided hereunder constitute separate "payments" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i). It is further intended that payments hereunder satisfy, to the greatest extent possible, the exemption from the application of Section 409A of the Code (and any state law of similar effect) provided under Treasury Regulation Section 1.409A-1(b)(4) (as a " **short-term deferral** "). To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision will be read in such a manner so that all payments hereunder comply with Section 409A of the Code. Except as otherwise expressly provided herein, to the extent any expense reimbursement or the provision of any in-kind benefit under this Policy is determined to be subject to Section 409A of the Code, the amount of any such expenses eligible for reimbursement, or the provision of any in-kind benefit, in one calendar year shall not affect the expenses eligible for reimbursement in any other taxable year (except for any lifetime or other aggregate limitation applicable to medical expenses), in no event shall any expenses be reimbursed after the last day of the calendar year following the calendar year in which Executive incurred such expenses, and in no event shall any right to reimbursement or the provision of any in-kind benefit be subject to liquidation or exchange for another benefit.

(b) **Other Severance Arrangements** . Except as otherwise specified herein, this Agreement represents the entire agreement between you and the Company with respect to any and all severance arrangements, vesting acceleration arrangements and post-termination stock option exercise period arrangements, and supersedes and replaces any and all prior verbal or written discussions, negotiations and/or agreements between the Executive and the Company relating to the subject matter hereof, including but not limited to, any and all prior agreements governing any Equity Award, severance and salary continuation arrangements, programs and plans which were previously offered by the Company to the Executive, and change in control and severance arrangements pursuant to an employment agreement or offer letter, and Executive hereby waives Executive's rights to such other benefits. In no event shall any individual receive cash severance benefits under both this Agreement and any other severance pay or salary continuation program, plan or other arrangement with the Company.

(c) **Dispute Resolution** . To ensure rapid and economical resolution of any and all disputes that might arise in connection with this Agreement, Executive and the Company agree that any and all disputes, claims, and causes of action, in law or equity, arising from or relating to this Agreement or its enforcement, performance, breach, or interpretation, will be resolved solely and exclusively by final, binding, and confidential arbitration, by a single arbitrator, in San Mateo County, and conducted by the American Arbitration Association under its then-existing employment rules and procedures. Nothing in this section, however, is intended to prevent either party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Each party to an arbitration or litigation hereunder shall be responsible for the payment of its own attorneys' fees.

(d) **Notice** . Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered or when mailed by U.S. registered or certified mail, return receipt requested and postage prepaid or deposited with Federal Express Corporation, with shipping charges prepaid. In the case of the Executive, mailed notices shall be addressed to him or her at the home address which he or she most recently communicated to the Company in writing. In the case of the Company, mailed notices shall be addressed to its corporate headquarters, and all notices shall be directed to the attention of its Secretary.

(e) **Amendment; Waiver** . This Agreement may not be amended or waived except by a writing signed by Executive and by a duly authorized representative of the Company other than Executive. No provision of this Agreement shall be modified, waived, superseded or discharged unless the modification, waiver or discharge is agreed to in writing and signed by the Executive and by an authorized officer of the Company (other than the Executive) and, to the extent it supersedes this Agreement, that this Agreement is referred to by date. No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(f) **Withholding Taxes** . All payments made under this Agreement shall be subject to reduction to reflect taxes or other charges required to be withheld by law.

(g) **Severability** . The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(h) **No Retention Rights** . Nothing in this Agreement shall confer upon the Executive any right to continue in service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company or any subsidiary of the Company or of the Executive, which rights are hereby expressly reserved by each, to terminate his or her service at any time and for any reason, with or without Cause.

(i) **Choice of Law** . The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California (other than their choice-of-law provisions).

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF , each of the parties has executed this **Severance and Change in Control Agreement** , in the case of the Company by its duly authorized officer, as of the day and year first above written.

	CLOUDERA, INC.
______________________________	______________________________
[Name]	By:
	Title:

EXECUTIVE ADDENDUM TO THE
SEVERANCE AND CHANGE IN CONTROL AGREEMENT

This Executive Addendum incorporates and is governed by the Severance and Change in Control Agreement and is entered into as of _________ __, 201_ (the " **Effective Date** ") by and between ________________ (the " **Executive** ") and Cloudera, Inc., a Delaware corporation (the " **Company** "). Collectively, these documents are referred to as the " **Agreement** ".

Severance Multiplier (Other than During a Change in Control Period)

As used in Section 2(a)(i) of the Agreement, the " **Severance Multiplier (Other than During a Change in Control Period)** " shall be: ______.

COBRA Continuation Period (Other than During a Change in Control Period)

As used in Section 2(a)(ii) of the Agreement, the " **COBRA Continuation Period (Other than During a Change in Control Period)** " shall mean: _______ months.

Severance Multiplier (During a Change in Control Period)

As used in Section 2(b)(i) of the Agreement, the " **Severance Multiplier (During a Change in Control Period)** " shall be: ______.

COBRA Continuation Period (During a Change in Control Period)

As used in Section 2(b)(ii) of the Agreement, the " **COBRA Continuation Period (During a Change in Control Period)** " shall mean: _______ months.

Equity Acceleration (During a Change in Control Period)

As used in Section 2(b)(iii) of the Agreement, the " **Equity Acceleration** " shall mean: ____ % of the then unvested shares subject to the applicable Equity Awards.

Post-Termination Exercise Date

As used in Section 2(a)(iii) and Section 2(b)(iii) of the Agreement, the " **Post-Termination Exercise Date** " shall be the ________ month anniversary of the effective date of the Executive's Qualifying Termination.

Definitions

[For junior executives:]

For purposes of a Qualifying Termination *other than during a Change in Control Period* , " **Cause** " shall also include Executive's performance of duties below the level expected by Executive's supervisor and/or senior management of the Company.

[For certain senior executives:]

[“ **Good Reason** ” shall also include the failure of the Company’s successor to appoint the Executive as ____ reporting to ______ of the top-level acquiring company. Further, the failure set forth in the foregoing sentence shall be deemed to have occurred if (a) the Company’s successor or its parent makes the appointment but that successor company is not a publically traded company on either the NASD or NYSE and (b) the Company was a publically traded company on the NASD or NYSE at the time of the Change in Control.]

IN WITNESS WHEREOF , each of the parties has executed this Executive Addendum to the **Severance and Change in Control Agreement** , in the case of the Company by its duly authorized officer, as of the day and year first above written.

CLOUDERA, INC.

______________________________	______________________________
[Name]	By:
	Title:

Exhibit 23.02

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-217522) pertaining to the 2008 Equity Incentive Plan, the Gazzang 2008 Stock Purchase and Option Plan, the 2017 Equity Incentive Plan and the 2017 Employee Stock Purchase Plan of Cloudera, Inc. of our report dated April 4, 2018, with respect to the consolidated financial statements of Cloudera, Inc., included in this Annual Report (Form 10-K) for the year ended January 31, 2018.

/s/ Ernst & Young LLP

Redwood City, California
April 4, 2018

Exhibit 31.1

CERTIFICATION UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Thomas J. Reilly, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cloudera, Inc;

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

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

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

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

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

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

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

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

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

Date: April 4, 2018

/s/ Thomas J. Reilly
Thomas J. Reilly
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jim Frankola, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cloudera, Inc.;

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

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

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

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

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

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

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

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

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

Date: April 4, 2018

/s/ Jim Frankola
Jim Frankola
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Thomas J. Reilly, Chief Executive Officer of Cloudera, Inc. (the “Company”), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. the Annual Report on Form 10-K of the Company for the period ended January 31, 2018 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Date: April 4, 2018

/s/ Thomas J. Reilly
Thomas J. Reilly
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Jim Frankola, Chief Financial Officer of Cloudera, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. the Annual Report on Form 10-K of the Company for the period ended January 31, 2018 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Date: April 4, 2018

/s/ Jim Frankola
Jim Frankola
Chief Financial Officer
(Principal Financial Officer)