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 February 1, 2019

or

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

For transition period from ___________to __________

Commission File Number 001-35680

Pivotal Software, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**94-3094578**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

875 Howard Street, Fifth Floor
San Francisco, California 94103
(415) 777-4868

(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**
Class A Common Stock, par value $0.01	New York Stock Exchange

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

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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 13(a) of the Exchange 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 August 3, 2018, based on the closing price of $23.57 for shares of the Registrant's Class A common stock as reported by the New York Stock Exchange on such date, was approximately $1,929.7 million .

As of February 28, 2019, there were approximately 266,067,111 shares of the Registrant's common stock outstanding, consisting of 90,552,839 outstanding shares of Class A common stock and 175,514,272 outstanding shares of Class B common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Information required in response to 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 2019. 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 February 1, 2019.

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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

We provide a leading cloud-native platform that makes software development and IT operations a strategic advantage for our customers. Our cloud-native platform, Pivotal Cloud Foundry ("PCF"), accelerates and streamlines software development by reducing the complexity of building, deploying and operating new cloud-native applications and modernizing legacy applications. This enables our customers' development and IT operations teams to spend more time writing code, waste less time on mundane tasks and focus on activities that drive business value – building and deploying great software. PCF customers can accelerate their adoption of a modern software development process and their business success using our platform through our complementary strategic services, Pivotal Labs ("Labs"). Enterprises across industries have adopted our platform to build, deploy and operate software, including enterprises in the automotive and transportation, industrial and business services, financial services, healthcare and insurance, technology and media, consumer and communications and government sectors.

Cloud-native software is reshaping businesses across all industries, empowering enterprises to innovate at a higher velocity and become more digital, mobile, data-driven and always-connected. Cloud-native software is designed to be highly available, scalable and modular to allow for frequent iteration and feature releases. Despite the widespread availability of private and public cloud infrastructure, many organizations are burdened by legacy technologies and software development processes that prevent them from fully realizing the benefits of cloud-native software. As a result, organizations require a modern agile development process and a cloud-native platform that can be deployed on every major private and public cloud.

Our offering, which includes PCF and Labs, enables organizations to build cloud-native software and compete in today's business environment.

- PCF accelerates and streamlines software development by reducing the complexity of building, deploying and operating modern applications. PCF integrates an expansive set of critical, modern software technologies to provide a turnkey cloud-native platform. PCF combines leading open-source software with our robust proprietary software to meet the exacting enterprise-grade requirements of large organizations, including the ability to operate and manage software across private and public cloud environments, such as Amazon Web Services, Microsoft Azure, Google Cloud Platform, VMware vSphere and OpenStack. PCF is sold on a subscription basis.

- Labs software development experts deliver strategic services that transfer the expertise for enterprises to accelerate their cloud-native transformation by implementing modern agile development practices. With Labs, we help customers co-develop new applications and transform existing ones while accelerating software development, streamlining IT operations and ultimately driving self-sustaining business transformation.

We market and sell PCF and Labs through our sales force and ecosystem partners. We leverage our mutually beneficial commercial and go-to-market relationships with Dell Technologies ("Dell") and VMware, Inc. ("VMware") to win new customers and to expand our customer footprint. We also work closely with large public cloud providers, including Google and Microsoft, to bring our customers' workloads to their cloud infrastructure. We have received numerous industry awards, including the Microsoft Azure US consumption 2018 partner of the year award, the Solstice 2018 Partner of the Year award, the Apigee 2018 Partner of the Year award; and Pivotal Container Service ("PKS") won CRN's 2018 Tech Innovator award for container technology.

We intend to prioritize the growth of PCF, while leveraging our strategic services and increasingly relying on global systems integrators ("SI") and boutique consulting firms that are building focused practices around Pivotal technology implementation, application migration and cloud-native development. These enterprise technology providers include Accenture and the Accenture Pivotal Business Group, Capgemini, CGI, Cognizant, DXC, HCL, NTT-Data, Perficient, Solstice, and Wipro.

We are focused on subscription sales of our platform. Since announcing PCF in November 2013, our subscription customer count has grown to 377 as of the end of fiscal 2019. Our customers often start with smaller PCF deployments in specific groups or departments and then expand their subscriptions as they seek to deploy and manage more applications and other workloads. At the end of fiscal 2019, our trailing four-quarter dollar-based net expansion rate was 149% .

Our subscription revenue was $400.9 million , $259.0 million and $150.0 million for fiscal 2019, fiscal 2018 and fiscal 2017, respectively, representing year-over-year growth of 55% for fiscal 2019 and 73% for fiscal 2018. Our total revenue was $657.5 million , $509.4 million and $416.3 million for fiscal 2019, fiscal 2018 and fiscal 2017, respectively, representing year-over-year growth of 29% for fiscal 2019 and 22% for fiscal 2018. We expect that over time subscription revenue will continue to become a larger percentage of our total revenue as customers continue to adopt PCF and as our SI partner ecosystem ramps to deliver strategic services directly to our customers. Our GAAP net losses were $141.9 million , $163.5 million and $232.9 million for fiscal 2019, fiscal 2018 and fiscal 2017, respectively.

Competitive Strengths

Our competitive strengths include:

First mover in cloud-native transformations. We have been at the forefront of the agile development and cloud-native platform movements, and we offer our customers a highly differentiated approach to cloud-native transformation. We apply Labs’ processes to our development of the PCF platform, resulting in ongoing, rapid and prioritized feature development.

Enterprise-grade software platform integrating open source. We designed PCF to use open source while also meeting the exacting performance, availability, security and management requirements of large organizations. In addition, we enable developers to use many of the modern and popular developer tools that are available in the open-source community. For example, we integrate PCF with leading open-source projects such as Kubernetes, as well as popular Pivotal-led open-source projects such as Spring Boot framework and Spring Cloud tools.

Blue-chip customer adoption. Many of the world’s largest organizations are using our platform, including more than 80 of the Fortune 500 companies. Our blue-chip customer base has extended to address a wider range of organizations, including Global 2000 enterprises across industries, companies outside the Global 2000 that develop software to differentiate their businesses and public sector organizations.

Large and growing PCF ecosystem. We are at the center of a large and growing PCF ecosystem. We believe that as more of this ecosystem integrates with our platform, we experience positive network effects that drive faster adoption of our platform and further differentiate our software.

- *Public Cloud.* We work with all three of the major public cloud vendors, Amazon, Google and Microsoft and drive large numbers of workloads to their public cloud platforms.
- *Systems Integrators ("SIs").* Leading enterprise technology providers have launched dedicated practices focused on implementing PCF and providing Labs-like services. These enterprise technology providers include Accenture and the Accenture Pivotal Business Group, Capgemini, CGI, Cognizant, DCX, HCL, NTT-Data, Perficient, Solstice, and Wipro. These SIs create leverage for us by applying our cloud-native platform agile techniques to help customers transform. They also deliver co-development, application transformation and PCF implementation services.
- *Independent Software Vendors ("ISVs").* Our Marketplace has over 135 ISVs offering services integrated with our platform. Some of these ISVs include Apigee, AppDynamics, Black Duck, Confluent, Dynatrace, MongoDB, New Relic, Redis Labs and Solace, enabling enterprises to quickly realize additional benefits of our platform.
- *Strategic Partners.* We jointly market and sell our products and services with Dell and VMware and enjoy significant and mutually beneficial commercial and go-to-market relationships.

Leading cloud-native platform with strategic services. Our cloud-native platform combines technology and agile development through our renowned Labs processes, enabling cloud-native transformation within enterprises.

Viral adoption together with C-level focus. Our platform leverages open-source technology, including Cloud Foundry and Spring. In addition to promoting wide adoption, we have an enterprise sales force that often provides us with access to C-level executives because the decision to use PCF and Labs is often a strategic transformative one.

Growth Strategy

Key elements of our growth strategy include our plans to:

- ***Extend technology lead of our cloud-native platform.*** We have developed an industry leading cloud-native application platform, and we intend to continue enhancing our product capabilities and expanding our partner ecosystem as our customer requirements evolve.

- ***Maintain open cloud-native platform advantage.*** We have played a central role in founding and popularizing application infrastructure- and development-related open-source projects, including Cloud Foundry, Spring and RabbitMQ. We intend to continue to partner with technology leaders and third-party software vendors to continue to offer the latest technologies for our customers.

- ***Continue to drive new customer adoption.*** We are focused on Global 2000 enterprises across industries, companies outside the Global 2000 that develop software to differentiate their businesses and public sector organizations. We target these enterprises and organizations because they represent a large market opportunity.

- ***Expand adoption within existing customers.*** We intend to broaden our relationships with existing customers by helping them continue to make software development and operations a strategic advantage. Our sales force and partners assist our customers in identifying new use cases for our platform and migrating their existing applications to our platform, which increases our PCF footprint. Part of our strategy to scale our subscription revenue is to rely, in part, on SI partners to deliver strategic services to our customers. We intend to grow our services revenue at a slower rate than our subscription revenue as customers are enabled on our platform and increasingly use our partner ecosystem for their services needs.

- **Continue to capitalize upon our relationships with our strategic partners.** Our deep relationships with Dell and VMware broaden our reach into the largest organizations around the globe. Product integrations with Dell and VMware enable turn-key solutions for customers. We intend to continue to leverage our mutually beneficial commercial and go-to-market relationships with Dell and VMware to win new customers and to expand our customer footprint.

- ***Further leverage partnerships with public cloud vendors.*** We work with all three major public cloud providers: Amazon, Microsoft and Google. We intend to maintain strong engagement with our cloud partner ecosystem to gain increased reach and greater distribution of our offering, accelerate customer expansion and penetrate new markets.

- ***Continue to leverage the combined strengths of PCF and Labs to drive PCF expansion.*** We have realized significant benefits in innovating PCF development and Labs process improvements by capitalizing on the PCF and Labs feedback loop with customers. We intend to focus our Labs resources on customers with the greatest PCF opportunity and acquiring new customers with significant PCF opportunity.

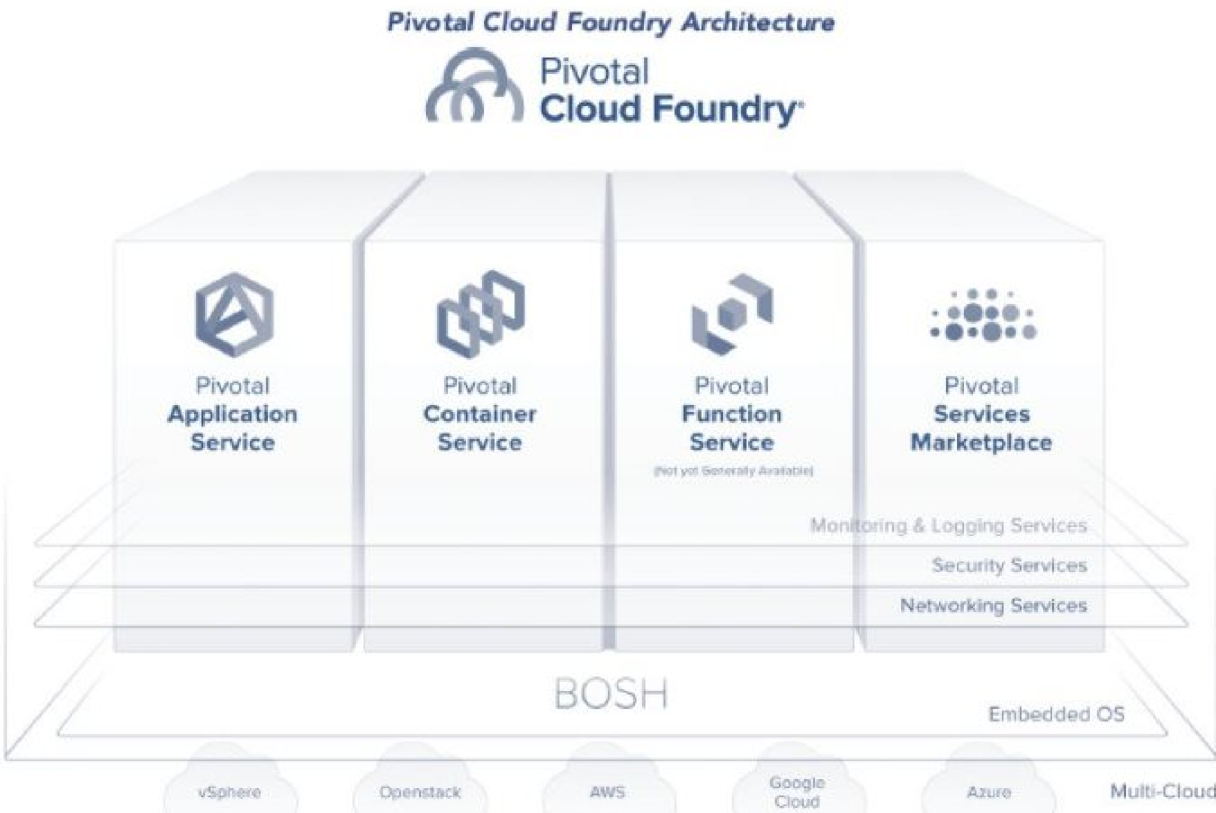
Our Complementary Platform and Strategic Services Offering

We provide a leading cloud-native platform that makes software development and IT operations a strategic advantage for our customers. PCF customers can accelerate their adoption of modern software development practices through Labs, our complementary strategic services. Our customers realize measurable improvement in developer productivity, software quality, security, time-to-market and IT operational efficiency. Our offering helps make developing and operating software a strategic advantage for our customers, empowering them to revolutionize their customer experiences, helping create new revenue streams and improving the speed and cost of business operations through software.

Pivotal Cloud Foundry

PCF is a cloud-native platform that provides a consistent way to launch, and quickly iterate on, applications in the most popular programming languages (such as Java, .Net, Ruby, Python, Node.js and Go) and frameworks (such as Spring) across private, public and multi-cloud environments. PCF leverages Cloud Foundry open-source software and adds enterprise-grade qualifications and capabilities such as platform enhancements, infrastructure automation, application enablement, cloud-native enablement, security and enterprise support. The critical platform components of PCF include: a multi-cloud orchestration foundation, an embedded operating system, a central security and credential framework, a built-in advanced container networking and security engine, a robust and scalable application middleware environment and leading application and data microservices technologies.

Pivotal Cloud Foundry Architecture



The components of PCF include:

Products to handle customers' differing workloads and needs.

- *Pivotal Application Service.* Pivotal Application Service ("PAS") is our flagship cloud-native application platform that allows enterprises to continuously deploy and operate custom software securely and at scale across popular private and public clouds. Many enterprises have adopted PAS as their multi-cloud platform for new and existing applications. PAS is built for secure and continuous deployment of applications built using microservices.

- *Pivotal Container Service.* Pivotal Container Service ("PKS") is our container management platform that we co-developed with Google and VMware, which leverages core infrastructure components from PCF. PKS allows enterprises to deploy and operate Kubernetes, an open-source system for container orchestration, in an enterprise-grade manner across private and public clouds. Containers package and isolate applications with their entire runtime environment - they contain all of the files necessary to run on their own. PKS includes VMware NSX to programmatically manage software defined networking and is also integrated with VMware tools such as VMware vRealize Operations, VMware vSAN and Wavefront by VMware.

- *Pivotal Function Service.* Pivotal Function Service ("PFS") is a Function-as-a-Service ("FaaS") platform designed to run on Kubernetes. PFS is based on Riff, a Pivotal-sponsored open source project, and Knative, a Google-sponsored open source project. PFS is designed to allow enterprises to develop, run and manage applications composed of functions across private and public clouds. FaaS platforms allow developers to write only the function logic necessary to accomplish a given task while the platform provides all of the other necessary runtime capabilities. We believe that FaaS will become a common requirement of customer applications as event-driven systems gain popularity.

- *Pivotal Services Marketplace.* Our Marketplace provides customers access to Pivotal and partner products that deploy and operate on PCF. These services include MySQL, Pivotal Cloud Cache, Concourse and RabbitMQ. Additionally, ISV partner products have been integrated with our platform to leverage certain of our common services and core technologies on PCF.

• ***Common Platform Services.*** For each of our products above, PCF has common services that support operational efficiency, developer productivity, security and availability, which enable us to efficiently add PCF products and enable our customers to better make use of our platform and products.

• ***BOSH.*** BOSH is open-source orchestration software that provides an integrated set of foundational services and core technologies for deploying and operating PCF. BOSH enables operators to build and manage environments for large and complex IT systems. BOSH unifies release engineering, deployment and lifecycle management of small and large-scale cloud software, with the ability to provision and deploy software across hundreds of virtual machines on both private and public cloud environments. It is designed to perform monitoring, failure recovery and software updates without downtime and integrates a hardened operating system.

• ***Multi-Cloud.*** PCF supports all of the major private and public cloud platforms: Amazon Web Services, Microsoft Azure, Google Cloud Platform, OpenStack and VMware vSphere. We collaborate with these cloud providers to maintain tight integration to the infrastructure layer. We automate the underlying cloud infrastructure of a PCF deployment, thereby reducing the operator burden to build and maintain their clouds and the need for developers to focus on the underlying infrastructure.

• ***Other Data Products.*** We also offer other data products, such as Pivotal Gemfire, Pivotal Greenplum and Pivotal Postgres. To make building data driven applications easy for our customers, our strategy is to continue developing integrations, including between Pivotal Greenplum and PCF, while also working to modernize Pivotal Greenplum to make it easier to deploy and operate on any cloud.

Pivotal Labs

Labs offers strategic services for organizations to adopt and implement agile development and to transform existing applications to run on PCF. Labs has been pioneering and refining agile development processes for over 25 years. With Labs' disciplined and agile processes, software is developed collaboratively, with cross-functional teams who break down projects into discrete tasks and work iteratively within an environment of changing requirements. Rather than deploying periodic and major releases, software is deployed frequently, which allows for continuous feedback as the product takes shape. Our approach also involves pair-programming, in which Labs experts are paired with customer engineers. Each pair works in close collaboration, sometimes using a single keyboard, to write code together.

Labs also applies an operational practice known as "DevOps." Embracing these agile processes can be challenging for many organizations whose cultures have ingrained waterfall development methodologies, separate "dev," "ops" and other organizational silos and are generally resistant to change. We implement a structured approach designed to break through these silos and imprint Labs' disciplines with our customers and with our partners. We use Labs development methodologies to enable our customers to create new applications and re-platform legacy applications to the PCF platform. Our objective is to teach our customers Labs' agile processes so that they can become self-sufficient and transform how they build software.

Implementation and Other Services

We also offer platform implementation services to enable our customers and partners to deploy, provision and operate the PCF platform at scale. We deliver product support and other services to assist our customers in meeting their business goals with our software. Premium support services are delivered by our global support organization. These services are offered during the term of the subscription, or maintenance term for certain legacy software products, and include: unlimited and responsive phone, web and email based issue, or ticket, support; unspecified product updates and upgrades; and online access to documentation, technical resources, knowledge base and discussion forums.

Additionally, we offer training to strategic partners so they can provide Labs-like services, driving increased leverage in our business model. We also offer a range of standard and customized internet and in-person courses to educate end users, operators and partners to upgrade their Pivotal product knowledge and capabilities.

Our Customers

As of February 1, 2019, we had 377 subscription customers on our platform with annual revenue of $50,000 or greater, including companies in the Global 2000 and Fortune 500. Our global customer base spans multiple industry verticals such as financial services, healthcare, transportation, technology, media, communications, and consumer. We also have customers in the government sector and consider it an important and growing segment for new and expansion sales.

Sales and Marketing

Our sales efforts are centered on landing and expanding PCF subscriptions. Frequently, an organization will subscribe to PCF for near-term consumption needs for a single division or small set of applications and then subsequently expand its subscription capacity and deployment to other divisions or a broader set of applications across the organization.

We primarily sell PCF through our sales force, which is comprised of enterprise sales representatives who team with platform architects, or technical sales engineers, and supporting business operations personnel. Our account teams are organized primarily by geographic coverage with some specialization for various industries.

Our sales efforts target the C-suite, technology professionals, software developers and data scientists. In addition to our sales force, we rely on partners, including our strategic partners Dell and VMware, public cloud vendors and SIs, to increase our sales and distribution of our technology and services. In addition, we have ISV partners whose integrations enable enterprises to receive additional benefits of our platform. Our principal marketing programs include: webinars, user conferences (such as the SpringOne Platform conference and Cloud Foundry Foundation Summits in North America and Europe) and cooperative marketing efforts with partners. We generate customer leads, accelerate sales opportunities and build brand awareness through our marketing programs and through our ecosystem partners.

Research and Development

Our ability to compete depends in large part on our continuous commitment to research and development and our ability to rapidly introduce new technologies, features and functionality. Our research and development organization is responsible for the design, development, testing and certification of our offerings. We focus our efforts on developing our core technologies and further enhancing their usability, functionality, reliability, performance and flexibility. We also apply the Labs process to our development of PCF, resulting in ongoing, rapid and prioritized feature development.

Open-Source Initiatives

Pivotal supports open-source projects and communities for collaborative innovation such as: Cloud Foundry, Spring, Kubernetes, Knative, Istio, Apache Geode, Greenplum Database, RabbitMQ, PostgreSQL, Concourse, Apache MADlib, Apache Tomcat, Redis, and various others.

Cloud Foundry Foundation

In December 2014, we established the Cloud Foundry Foundation, an independent nonprofit, open-source project. The Cloud Foundry Foundation now has more than 64 members comprised of leading technology providers and global enterprises. The Cloud Foundry Foundation develops and maintains a number of programs and work groups designed to help advance awareness and adoption of the Cloud Foundry platform. Cloud Foundry is an open-source, cloud-agnostic application deployment platform. We believe that the Cloud Foundry Foundation helps promote Cloud Foundry as a leading Platform-as-a-Service ("PaaS") open-source technology with an expansive ecosystem.

Spring

Spring is the leading open-source framework for developers building modern Java applications and microservices. Millions of developers use Spring regularly. Spring simplifies complexities of application development so that developers can focus on building features and business value. Spring Boot is an extension of Spring designed to simplify the bootstrapping and development of cloud-native applications and is particularly popular for building microservices. The Spring Boot framework applies an opinionated approach to configuration, eliminating the need to define or implement boilerplate configuration before starting to build an application. Spring Cloud, built on top of Spring Boot and Netflix Open Source, provides components that enable common patterns in microservices application architectures, such as distributed configuration management, service discovery, circuit breakers, intelligent routing and micro-proxy. Using Spring Cloud, developers can quickly build and deploy a complex application that is highly available, resilient to failure and easily configured. PCF includes Spring Cloud as an integrated component of PAS, making it simpler for developers to deliver microservice applications on the platform.

Competition

The markets within which we operate are highly competitive. A significant number of companies and open-source projects have developed or are developing products and services that currently, or in the future may, compete with some or all of our offerings. In addition, in some instances we have strategic or other commercial relationships with companies with which we currently or may in the future compete. We face competition from:

- legacy application infrastructure and middleware from vendors such as IBM and Oracle;
- open-source based offerings supported by vendors such as Red Hat (which has agreed to be acquired by IBM); alternative Cloud Foundry-based offerings such as IBM Cloud and SAP Cloud Platform, which have proprietary features that are unique to their offerings; or potential customers' internally-developed, integrated and maintained efforts; and
- proprietary public cloud offerings from vendors such as Amazon Web Services (including its on-premise cloud offerings), Google Cloud Platform and Microsoft Azure.

Backlog

We define backlog to consist of future amounts that have not been invoiced under our agreements and amounts that have been invoiced and reflected as deferred revenue on our consolidated financial statements. As of February 1, 2019 and February 2, 2018, we had backlog of approximately $990 million and $820 million , respectively. We expect to recognize approximately 50% of the February 1, 2019 backlog as subscription or services revenue over the next 12 months and the remainder thereafter. We expect backlog will change from period to period for several reasons, including the timing and duration of customer subscription and services agreements, varying invoice cycles of subscription agreements and the timing of customer renewals.

Seasonality

We have seasonal end-of-quarter and end-of-fiscal-year concentration of our sales. Our sales vary by season with the fourth quarter typically being our strongest sales quarter, and the first quarter typically being our largest collections quarter. In addition, within each quarter, most sales occur in the last month of that quarter.

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, we contribute code to, and our platform incorporates, open source licensed to the general public under open source software licenses such as the Apache 2.0 Software License. Such licenses can grant licensees broad permissions to use, copy, modify and redistribute contributed code. As a result, open source development and licensing practices can limit the value of certain of our intellectual property assets.

As of February 1, 2019, we had been granted or had acquired 139 U.S. patents and had 73 U.S. patent applications pending. We also had 34 issued patents and 39 patent applications pending in foreign jurisdictions. Our patents expire between 2023 and 2037. We regularly review our development efforts to assess the existence and patentability of new intellectual property. We also pursue the registration of our domain names, trademarks and service marks and copyrights in our software in the United States and in certain locations outside the United States.

In addition to the protection provided by our intellectual property rights, we enter into confidentiality and proprietary rights or similar agreements with our employees, consultants and contractors. Our employees, consultants and contractors are also subject to invention assignment agreements. We further control the use of our proprietary technology and intellectual property through provisions in both general and product-specific terms of use.

Employees

As of February 1, 2019, we had 2,949 full time employees. Of these employees, 1,988 were in the United States, and 961 were in our international locations. We also engage contractors and consultants.

Corporate Information

We were incorporated in the state of Delaware in April 2013. Our principal executive offices are located at 875 Howard Street, San Francisco, California 94103 and our telephone number is (415) 777-4868. Our website address is https://pivotal.io. Information contained on, or that can be accessed through, our website does not constitute part of this Annual Report on Form 10-K.

Additional 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 SEC maintains a website at https://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 investor relations website at https://pivotal.io/investors as soon as reasonably practicable after we file such material with, or furnish such material to, the SEC.

ITEM 1A. RISK FACTORS

Investing in our Class A common stock involves a high degree of risk. You should consider and read carefully all of the risks and uncertainties described below, as well as other information included in this Annual Report, including our consolidated financial statements and related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations". Any of the following risks could have an adverse effect on our business, results of operations, financial condition and prospects. Our business, results of operations, financial condition, or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material.

Risks Related to Our Business and Industry

We have a limited operating history as an independent company, which makes it difficult to evaluate our prospects and increases the risk of your investment.

We have a limited operating history as an independent company and are scaling quickly, which makes it difficult to evaluate our business and prospects, including our ability to plan for and model future growth. As a relatively early stage company, we have encountered and will continue to encounter risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, including the risks described here. If we do not plan appropriately or do not address these risks successfully, our business and prospects will be adversely affected, and the market price of our Class A common stock could decline.

We have incurred substantial losses and may not be able to generate sufficient revenue to achieve and sustain profitability.

We have incurred net losses in each year since we were formed, including net losses of $141.9 million for fiscal 2019, $163.5 million for fiscal 2018, and $232.9 million for fiscal 2017, respectively. As of February 1, 2019, we had an accumulated deficit of $1,284.5 million and our net cash used in operating activities was $5.4 million in fiscal 2019. We may not achieve sufficient revenue to attain and maintain profitability. We expect our operating expenses to increase significantly in the future as we hire additional sales, marketing, research and development and other employees across functions, increase or make strategic investments, scale relationships with ecosystem partners and open new offices. In addition, we expect to incur significant additional 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 in order to become profitable in future periods. Because some of the markets for our offering are rapidly evolving and are not mature, it is difficult for us to predict our future results of operations. We cannot assure you that we will achieve profitability in the future or that, if we do become profitable, we will be able to sustain profitability. Any failure by us to achieve, sustain or increase profitability or generate positive cash flow from operations on a consistent basis could cause the value of our Class A common stock to decline.

Our future success depends in large part on the growth of our target markets. Even if our target markets grow as expected, our ability to further penetrate these markets is uncertain.

Our ability to increase sales of PCF and Labs depends on growth in our target markets, which include the markets for cloud application infrastructure, Platform-as-service and application infrastructure, middleware and development solutions. Our expectations regarding the potential for future growth in the markets for these types of offerings are subject to uncertainty. In particular, even if there is increased enterprise adoption of public cloud strategies, we cannot assure you that enterprise demand for multi-cloud solutions like ours will grow commensurately. If market demand does not grow as expected, our business and prospects may be adversely affected.

Even if these markets grow as expected, we cannot be sure that our business will grow at a similar rate, or at all. Our experience in the markets and our experience selling PCF are relatively limited, and PCF has been commercially available for a limited period of time. We began selling PCF in fiscal 2014 and frequently update its features and functionality. Our ability to increase sales of PCF and our other offerings is affected by a number of factors beyond our control, including market acceptance of our offerings by existing customers and potential new customers, the extension of our offerings to new use cases and workloads, changing open-source platform technologies and standards and the timing of development and release of new products, capabilities and functionality by our competitors and by us. In addition, while we seek to expand the use of PCF through our Labs projects, we cannot assure you that we will be successful or that PCF and Labs as a complementary offering will produce the benefits that we expect. In addition, we cannot assure you that our offerings and future enhancements to our offerings will be able to address future advances in technology or requirements of existing customers or potential new customers. If we are unable to meet customer demands, to leverage the strengths of PCF and Labs as complementary offerings or to achieve more widespread market acceptance of our offerings, our business, results of operations, financial condition and growth prospects will be adversely affected.

Our future growth is largely dependent on PCF and platform-related services, and challenges in market acceptance, adoption and growth of PCF could harm our business, results of operations and prospects.

We expect that we will depend on PCF and platform-related services, which include all of our Labs services and most of our implementation services, to generate the vast majority of our future revenue, as revenue from PCF and platform-related services has represented a substantial majority and an increasing portion of our total revenue from fiscal 2017 to fiscal 2019. As a result, our operating results could suffer due to:

- declines in demand for PCF;
- failure of PCF to achieve continued market acceptance;
- the market for cloud-native software not continuing to grow, or growing more slowly than we expect;
- introduction of products and technologies that serve as a replacement or substitute for, or represent an improvement over, PCF;
- technological innovations or new open-source standards that PCF does not address or that favor competitors;
- sensitivity to current or future prices offered by us or competing solutions; and
- our inability to release enhanced versions of PCF on a timely basis.

If the market for PCF grows more slowly than anticipated or if demand for PCF does not grow as quickly as we anticipate, whether as a result of competition, pricing sensitivities, product obsolescence, technological change, unfavorable economic conditions, uncertain geopolitical environment, budgetary constraints of our customers or other factors, our business, results of operations and prospects will be harmed.

Our subscription revenue growth rate, both in absolute terms and relative to total revenue, in recent periods may not be indicative of our future performance and ability to grow. Similarly, our services revenue growth rate has fluctuated in recent periods, may continue to fluctuate and will likely decline over the long term as we scale our PCF business.

We have experienced significant growth in recent periods, particularly in subscription revenue, which increased to $400.9 million in fiscal 2019 from $259.0 million in fiscal 2018. Subscription revenue also increased as a percentage of total revenue in each of the last three fiscal years, resulting in an increase of our overall gross profit. Our strategy is to continue to increase subscription revenue in general, relative to services, and as a proportion of our total revenue.

You should not consider our subscription revenue growth rate in recent periods as indicative of our future performance. We may not achieve similar growth rates in future periods. Any success that we may experience in the future will depend in large part on our ability to, among other things:

- add new customers and retain our existing customers;
- increase revenue from existing customers through increased or broader use of our platform within their organizations;
- improve the performance and capabilities of our platform through research and development;
- continue to successfully expand our business domestically and internationally; and
- successfully compete.

During the same periods, our services revenue increased to $256.6 million in fiscal 2019 from $250.4 million in fiscal 2018. We are focused on prioritizing the growth of PCF and intend to leverage our existing services and are increasing our reliance on our emerging SI partners to deliver platform-related services to our customers.

Our business and prospects will be harmed if our customers do not renew their subscriptions and expand their use of our platform.

Our future growth depends in part on customers renewing their subscriptions and expanding their use of our platform. The broad adoption of our platform within a customer presents challenges, including changing the customer’s culture and approach to the customer’s development of internal expertise and infrastructure to manage and utilize our platform effectively.

Existing customers have no obligation to renew their subscriptions after the initial term. Given our limited operating history, the limited commercial availability of PCF and the immaturity of the markets in which we operate, we may not be able to accurately predict the rate at which customers will renew their subscriptions. Our customers may not renew their subscriptions or may renew at lower levels or on terms that are less economically beneficial to us. Our customers' renewal rates may decline or fluctuate as a result of a number of factors, including customer dissatisfaction with our pricing or the functionality, features or performance of our platform, our inability to meet our contractual commitments, competitors' product offerings, internally-developed, open-source solutions that do not require vendor assistance, changing open-source standards, consolidation within our customer base and other factors, a number of which are beyond our control. If our customers do not renew their subscriptions or renew on less favorable terms, our revenue may grow more slowly than expected, if at all, and our business, results of operations and financial condition will be adversely affected.

Even if our existing customers renew their subscriptions and continue to use PCF, it is important for our success and growth that these customers expand their use of our platform. The rate at which our customers expand their use of our platform depends on a number of factors, including general economic conditions, the functioning of our platform, the ability of our field organization, together with our partners, to assist our customers in identifying new use cases, modernizing their software development approach and IT operational infrastructure and achieving success with ingraining a new culture and our customers' overall satisfaction.

The purchase of our software and services is discretionary and can involve significant expenditures. If our existing customers cut costs, they may significantly reduce their enterprise software expenditures, and they may not renew or expand their use of our platform.

As technologies and the markets for our software and services change, our subscription-based business model for PCF may no longer meet the needs of our existing customers. Consequently, we may need to develop new and appropriate software and services and marketing and pricing strategies for our solutions. If we are unable to adapt our business model to changes in the marketplace or if demand for our software and services declines, our business, results of operations, financial condition and cash flows could be harmed.

We operate in a highly competitive industry. Any failure to compete effectively could materially and adversely affect our business, results of operations and financial condition.

The markets within which we operate are highly competitive. A significant number of companies and open-source projects have developed or are developing products and services that currently, or in the future may, compete with some or all of our offerings. In addition, in some instances, we have strategic or other commercial relationships with companies with which we currently or in the future may compete. We face competition from:

- legacy application infrastructure and middleware from vendors such as IBM and Oracle;
- open-source based offerings supported by vendors such as Red Hat; alternative Cloud Foundry-based offerings such as IBM Cloud and SAP Cloud Platform, which have proprietary features that are unique to their offerings; or potential customers' internally-developed, integrated and maintained efforts; and
- proprietary public cloud offerings from vendors such as Amazon Web Services (including its on-premise cloud offerings), Google Cloud Platform and Microsoft Azure.

Many of our principal competitors have substantially longer operating histories, larger numbers of existing customers, greater capital and research and development resources, broader sales and marketing capabilities, stronger brand and customer recognition, larger intellectual property portfolios and broader global distribution and presence. Our competitors may be able to offer products or functionality similar to ours at a more attractive price than we can by integrating such products with their other product offerings. Acquisitions and consolidation in our industry, such as IBM's proposed acquisition of Red Hat, may provide our competitors even more resources or may increase the likelihood of our competitors offering integrated products with which we cannot effectively compete. New innovative start-ups and existing large companies that are making significant investments in research and development could also launch new products and services that we do not offer and that could gain market acceptance quickly. If we were unable to anticipate or react to these competitive challenges, our competitive position would weaken, which would adversely affect our business, results of operations and financial condition.

In addition, one of the characteristics of open-source software is that, subject to specified restrictions, anyone may modify and redistribute such software and use it to compete in the marketplace. Such competition can develop with a smaller degree of overhead and lead time than required by traditional proprietary software companies. New open source-based platform technologies and standards are consistently being developed and can gain popularity quickly. Improvements in open source could cause customers to replace software purchased from us with their internally-developed, integrated and maintained open-source software. It is possible for competitors with greater resources than ours to develop their own open-source software-based products and services, potentially reducing the demand for our solutions and putting price pressure on our offerings. We cannot guarantee that we will be able to compete successfully against current and future competitors, that competitive pressure or the availability of new open-source software will not result in price reductions, reduced operating margins or increased sales and marketing expenses or that we will increase our market share, any one of which could harm our business, financial condition, results of operations and cash flows.

Our sales cycles can be long, unpredictable and vary seasonally, which can cause significant variation in the number and size of transactions that close in a particular quarter.

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. Many of our customers are large enterprises, whose purchasing decisions, budget cycles and constraints and evaluation processes are unpredictable and out of our control. Further, the timing of our sales is difficult to predict. The length of our sales cycle, from initial evaluation to payment for our subscriptions can range from several months to well over a year and can vary substantially from customer to customer. Our sales efforts involve significant investment in resources in field sales, partner development, marketing and educating our customers about the use, technical capabilities and benefits of our platform and services. Customers often undertake a prolonged evaluation process, which frequently involves not only our platform but also those of other companies or the consideration of internally developed alternatives including those using open-source software. 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 experienced seasonal and end-of-quarter concentration of our transactions and variations in the number and size of transactions that close in a particular quarter, which impacts our ability to grow revenue over the long term and plan and manage cash flows and other aspects of our business and cost structure. Our transactions vary by quarter, with the fourth quarter typically being our largest. In addition, within each quarter, a significant portion of our transactions occur in the last two weeks of that quarter. If expectations for our business turn out to be inaccurate, our revenue growth may be adversely affected over time and we may not be able to adjust our cost structure on a timely basis and our cash flows may suffer.

We do not control and may be unable to predict the future course of open-source technologies, including those used in our offering, which could reduce the market appeal of our offering and damage our reputation.

We do not control the development of the open-source technology in our offering. We incorporate disparate inputs from various open-source developers and open-source projects, including Kubernetes, whose technology and development decisions we may not control. Different open-source projects may also overlap or compete with the ones that we incorporate into our offering. The technology developed by one group for one project may become more widely used than that developed or integrated by us. Additionally, another company’s distribution of the same open-source technology may be favored by customers over ours if such other company is viewed as a more important contributor to such technology. If we acquire or adopt a new technology and incorporate it into our offering but a competing technology or distribution becomes more widely used or accepted, the market appeal of our offering may be reduced and that could harm our reputation, diminish our brand and harm our prospects.

Different groups of open-source software programmers collaborate with one another to develop certain of the open-source software that may be contained in our offering. If open-source software programmers, many of whom we do not employ, or our own internal programmers do not continue to use, contribute to and enhance the open-source technologies that we rely on, the market appeal of our offering may be reduced, which could harm our reputation, diminish our brand and result in decreased revenue. We also cannot predict whether further developments and enhancements to these open-source technologies will be available from reliable alternative sources. If the open-source technologies that we rely on become unavailable, we may need to invest in researching and developing alternative technologies.

Security and privacy breaches could expose us to liability, damage our reputation, compromise our ability to conduct business, require us to incur significant costs or otherwise adversely affect our financial results.

Any security breach, unauthorized access or usage, virus or similar breach or disruption of our systems or software could result in the loss of confidential information, damage to our reputation and brand, early termination of our contracts, litigation, regulatory investigations or other liabilities. We have implemented administrative, technical and physical measures designed to prevent breach or disruption of our systems and may incur significant costs in connection with implementing additional preventative measures in the future. We have in the past and may in the future experience security breaches. Techniques used to obtain unauthorized access or to sabotage systems change frequently and are often not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or to implement adequate preventative measures. Any significant security breaches could result in the loss of business, litigation and regulatory investigations and penalties that could damage our reputation and adversely impact our results of operations and financial condition. We also rely heavily on third-party applications and cloud services, which may contain software vulnerabilities and other defects. If our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise and, as a result, someone obtains unauthorized access to sensitive data, including intellectual property, proprietary business information or personal information, our reputation would be damaged, our business may suffer and we could incur significant liability. Our existing cybersecurity insurance may not cover any, or cover only a portion of any, potential claims related to security breaches to which we are exposed or may not be adequate to indemnify us for all or any portion of liabilities that may be imposed and our cybersecurity premiums may go up.

Critical vulnerabilities and security defects could harm the market perception of our products or services.

If an actual or perceived critical security vulnerability is reported in our products or services, the market perception of our security measures and the security capabilities of our products or services could be harmed and we could lose sales and customers. For example, we market PCF's security as one of its principal benefits, so the market perception of PCF's security is important to our business. Our offerings are highly technical and complex and, when deployed, have contained and may contain errors, defects or security vulnerabilities. Any errors, defects or security vulnerabilities discovered in our offerings could result in loss of revenue or delay in revenue recognition, loss of customers and increased service and warranty cost, any of which could adversely affect our business results of operations and financial condition. Moreover, if a high-profile security breach occurs with respect to another PaaS solution provider, our customers and potential customers may lose trust in PaaS solutions generally, which could adversely impact our ability to retain existing customers or attract new ones.

Moreover, PCF is deployed on a customer's private cloud, a public cloud of its choice, or multiple clouds, and we have no control over our customers and their security personnel, processes or technology. We do not monitor or review the content that our customers store or transmit through PCF or the security measures they implement to deploy PCF. Customers may also delay the installation of, or not install, security updates, leaving them vulnerable. Accordingly, if there is a breach of PCF deployed at a customer's location or within a customer's control, our reputation could be damaged, our business may suffer and we could incur significant liability, even though our product was not necessarily the cause of such issue. We are also growing our partner ecosystem, which includes public cloud vendors, SIs and strategic partners, to sell, implement and support our offerings. We also sell our partners' offerings through the Pivotal Services Marketplace. We lack control over their security measures, and any breach of their security systems could similarly adversely affect us.

Our security profile is also impacted by our use of open-source software in our offering. Open-source software enables public access to source code, which is generally not a security risk posed by proprietary products.

If we do not effectively hire, train, retain and oversee our 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 depend on our sales force to obtain new customers and increase sales with existing customers. Our software and services offering is complex and there is competition for sales personnel with the range of abilities that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in continuing to hire, train and retain sufficient numbers of sales personnel to support our growth, including in international markets. In addition, a large percentage of our sales force is new to our company. New hires require significant training and oversight, typically over a period of several quarters, before they can 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, as we grow our sales force, its organization, management and leadership become increasingly difficult and complex, and, as a result, we may not be able to grow it successfully. If we are unable to hire, train and retain a sufficient number of effective sales personnel, if we are ineffective at overseeing a growing sales force or if the sales personnel we hire are otherwise unsuccessful in obtaining new customers or increasing sales to our existing customers, our business may be adversely affected.

Our future growth depends in large part on the success of our partner relationships.

In addition to our sales force, we rely on partners, including our strategic partners Dell and VMware, public cloud vendors and SIs, to increase our sales and distribution of our software and services. We also have ISV partners whose integrations increase our ecosystem of services. We are dependent on partner relationships to contribute to our growth and to create leverage in our business model. Our future growth will be increasingly dependent on the success of our partner relationships, and if those partnerships do not provide such benefits, our ability to grow our business will be harmed. If we are unable to scale our partner relationships effectively, or if our partners are unable to serve our customers effectively, we may need to expand our services organization, which could adversely affect our results of operations.

Our agreements with our partners are generally non-exclusive, meaning our partners may offer products themselves or from several different companies to their customers or have their products or technologies also interoperate with products and technologies of other companies, including products that compete with our offerings. Moreover, some of our partners also compete with us. If our partners do not effectively market and sell our offerings, choose to use greater efforts to market and sell their own products or those of our competitors or fail to meet the needs of our customers, our ability to grow our business and sell our offerings will be harmed. Furthermore, our partners may cease marketing our offerings with limited or no notice and with little or no penalty, and new partners could require extensive training and may take several months or more to achieve productivity. The loss of a substantial number of our partners, our possible inability to replace them or the failure to recruit additional partners could harm our results of operations. Our partner structure could also subject us to lawsuits or reputational harm if, for example, a partner misrepresents the functionality of our offerings to customers or violates applicable laws or our corporate policies.

We may not be able to respond to rapid technological changes with new offerings, which could have a material adverse effect on our sales and profitability.

The markets for our software platform are characterized by constant technological changes, changing open-source software platform technologies and standards, changing customer needs and frequent new software product introductions and improvements. The introduction of third-party solutions embodying new technologies and the emergence of new industry standards, including any open-source projects that have become widely adopted, could make our existing and future software offerings obsolete and unmarketable. In addition, as the enterprise software landscape evolves, we will continue to reassess the amount and timing of our initiatives. In the near term, we are increasing our investments in and expenditures for additional engineering resources and personnel necessary to compete with these rapidly-changing technologies, and these investments and expenditures will affect our profitability.

If we are not able to maintain and enhance our brand, our business and results of operations may be adversely affected .

We believe that protecting our Pivotal brand and maintaining and enhancing our reputation as a pioneer in cloud-native software, agile software development and DevOps is critical to our relationship with our existing customers and partners and our ability to attract new customers and partners. The successful promotion of our brand will depend on a number of factors, including our ability to continue to develop high-quality features and functionality for our offerings, our ability to successfully differentiate our offerings, delivery of customer value, leadership in open-source software, our marketing efforts and our continued protection of our brand. Our brand promotion activities may not be successful or yield increased revenue.

In addition, independent industry analysts often provide reviews of our offerings, as well as offerings of our competitors, and the perception of our offerings in the marketplace may be significantly influenced by these reviews. If these reviews are negative, or less positive as compared to those of our competitors’ products and services, our brand may be adversely affected. The performance of our partners may also affect our brand and reputation if customers do not have a positive experience with our partners’ services. The promotion of our brand requires us to make substantial expenditures, and we anticipate that the expenditures will increase as our market becomes more competitive, as we expand into new markets, and as more sales are generated through our partners and more services are performed by our partners. To the extent that these activities yield increased revenue, this revenue may not offset the increased expenses we incur. If we do not successfully maintain and enhance our brand, our business may not grow, we could lose customers or fail to attract potential customers, all of which would adversely affect our business, results of operations and financial condition.

Our stock price and trading volume are heavily influenced by the way analysts and investors interpret our financial information and other disclosures. Any unfavorable interpretations published by analysts or held by investors could have a negative impact on our stock price, regardless of accuracy, and any decline or lapse in the publication of research by analysts could cause our stock price and trading volume to decline.

The trading market for our Class A common stock depends in part on the research reports that analysts publish about our business. If few analysts cover us, demand for our Class A common stock could decrease and our Class A common stock price and trading volume may decline. Similar results may occur if one or more of these analysts stop covering us in the future or fail to publish reports on us regularly.

Even if our stock is actively covered by analysts, we do not have any control over the analysts or the measures that analysts or investors may rely upon to forecast our future results. For example, in order to assess our business activity in a given period, analysts and investors may look at the combination of revenue and changes in deferred revenue in a given period (sometimes referred to as "billings").

Over-reliance on billings or similar measures may result in analyst or investor forecasts that differ significantly from our own for a variety of reasons, including:

- a relatively large number of transactions occur at the end of the quarter. Invoicing of those sales may or may not occur before the end of the quarter based on a number of factors, including: the volume of transactions, the timing of receipt of information from the customer, the timing of subscription contract start dates, the timing and end dates of our fiscal quarters and fiscal years now that we have changed to a 52- or 53-week fiscal year basis ending on the Friday nearest to January 31 of each year (a "4-4-5 Fiscal Year") and the resulting shifting dates of our quarter end, and holidays. A shift of a few days has little economic impact on our business, but can 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.

In addition, as required by the revenue recognition standard under Accounting Standard Codification Topic 606, *Revenue From Contracts With Customers* ("ASC 606"), we disclose our remaining performance obligations. This disclosure obligation is prepared on the basis of estimates based upon contractual arrangements and historical patterns of delivery. Market practices surrounding the calculation of this measure are still evolving. It is possible that analysts and investors could misinterpret our disclosure or that the terms of our customer contracts or other circumstances could cause our methods for calculating this disclosure to differ significantly from others, which could lead to inaccurate or unfavorable forecasts by analysts and investors.

Regardless of accuracy, unfavorable interpretations of our financial information and other public disclosures could have a negative impact on our stock price. If one or more of the analysts who cover us publish unfavorable research about our business or otherwise downgrade our Class A common stock for any reason, the price of our Class A common stock would likely decline.

The loss of one or more members of our senior management team or an inability to attract and retain highly skilled employees, for which competition is intense, could adversely affect our planned growth.

Our success depends largely upon the continued service of our senior management team. From time to time, there may be changes in our senior management team, which could disrupt our business. Members of our senior management could terminate their employment with us at any time.

To execute our growth plan, we must attract and retain highly skilled employees. Competition for such personnel is intense, especially for engineers with high levels of experience in designing, developing and supporting software and for senior sales executives. We work on open-source software-based projects, making our developers highly marketable to other companies that work on similar projects. We may not be successful in attracting and retaining qualified personnel. 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. Many of the companies with which we compete for experienced personnel have greater resources than we have. In addition, our compensation arrangements, such as our equity award programs, may not always be successful in attracting new employees and retaining and motivating our existing employees. Further, many of our employees may be able to receive significant proceeds from sales of our Class A common stock in the public markets, which may reduce their motivation to continue to work for us. In addition, employees may be more likely to leave us if the exercise prices of the stock options that they hold are significantly above the market price of our Class A common stock. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be severely harmed.

Failure to manage our growth and maintain our corporate culture will harm our business.

We have substantially increased our overall headcount and expanded our business and operations in recent periods. Our headcount increased to 2,949 full-time employees at the end of fiscal 2019 from 2,518 full-time employees at the end of fiscal 2018. We have also expanded into additional geographic locations and added office space, including outside the United States. We expect to continue to expand our operations and employee headcount in the near term; however, our recent growth rates may not be indicative of our future growth. Our success will depend in part on our ability to continue to grow and to manage this growth effectively.

Our recent growth has placed, and future growth will continue to place, significant demands on our management, infrastructure and other resources and increased our costs. We will need to continue to develop and improve our operational, financial and management controls, and our reporting systems and procedures to manage the expected growth of our operations and personnel, which will require significant capital expenditures and allocation of valuable management and employee resources. If we fail to implement these infrastructure improvements effectively, our ability to ensure uninterrupted operation of key business systems and comply with the rules and regulations that are applicable to public reporting companies will be impaired. Further, if we do not effectively manage the growth of our business and operations, the quality of our platform and services could suffer, and we may not be able to adequately address competitive challenges. This could impair our ability to attract new customers, retain existing customers and expand their use of our platform, all of which would adversely affect our brand, overall business, results of operations and financial condition.

We believe that our culture has been and will continue to be a key contributor to our success. Our culture and core principles are critical to how we run our business, how we engage with our key constituencies, including our customers, and how we build and deliver our offerings. If we do not continue to maintain our unique culture as we grow, our business could be harmed.

Incorrect or improper implementation or use of our software or inability of our platform to integrate with third-party software or hardware could result in customer dissatisfaction and negatively affect our business, operations, financial results and growth prospects.

Our software is deployed in a wide variety of complex technology environments, and we believe our future success will depend on our ability to increase sales of our software subscriptions for use in such deployments. Our platform must also integrate with a variety of operating systems, software applications and hardware developed by others. We often assist our customers in achieving successful implementations for large, complex deployments. If we or our customers are unable to implement our software successfully, or are unable to do so in a timely manner, or if we are unable to devote the necessary resources to ensure that our solutions interoperate with other software, systems and hardware, customer perceptions of our company may be impaired, our reputation and brand may suffer and customers may choose not to increase their use of our software.

Once our platform is implemented on our customers' selected hardware, software or cloud infrastructure, our customers may depend on our support organization services to help them take full advantage of PCF, quickly resolve post-deployment issues and provide effective ongoing support. If our support organization or those of our partners do not offer high-quality services, our ability to sell our offerings to existing customers or to have them renew their subscriptions would be adversely affected. In addition, as we expand our operations internationally, our support organization will face additional challenges, including those associated with delivering support, training and documentation in languages other than English.

The reliability of our platform will continue to be critical to our success. Sustained errors, failures or outages could lead to significant costs and service disruptions, which could negatively affect our business, financial results and reputation.

Our reputation and ability to attract, retain and serve our customers are dependent upon the reliable performance of our platform and our underlying technical and network infrastructure. We have experienced, and will in the future experience, interruptions, outages and other performance problems. In addition, we rely on third-party service providers to host and deliver our cloud-based offerings, and these third parties may also experience interruptions, outages and other performance problems. Such disruptions may be due to a variety of factors, including infrastructure changes, human or software errors, capacity constraints and inadequate design. A future rapid expansion of our business could increase the risk of such disruptions. In some instances, we may not be able to identify the cause or causes of these performance problems within an acceptable period of time.

In addition, we could face claims for product liability, tort or breach of warranty. Our contracts with customers contain provisions relating to warranty disclaimers and liability limitations, which may not be upheld. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention and adversely affect the market's perception of us and our offerings. In addition, if our business liability insurance coverage proves inadequate or future coverage is unavailable on acceptable terms or at all, our business, results of operations and financial condition could be adversely impacted.

Adverse economic conditions or reduced information technology spending may adversely impact our revenues.

Our business depends on the overall demand for information technology and on the economic health of our current and prospective customers. The purchase of our offerings is often discretionary and may involve a significant commitment of capital and other resources. Weak economic conditions, or a reduction in information technology spending even if economic conditions improve, would likely adversely impact our business, results of operations and financial condition in a number of ways, including by lengthening sales cycles, lowering prices for our products and services and reducing sales. In addition, any changes in the domestic or international political environment or deterioration in international relations as well as resulting regulatory or tax policy changes may adversely affect our business and financial results. Furthermore, during challenging economic times our customers may face issues in gaining timely access to sufficient credit, which could result in an impairment of their ability to make timely payments to us. If that were to occur, we may be required to increase our allowance for doubtful accounts, which would adversely affect our financial results.

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 a limited history with our subscription offerings and pricing model and if, in the future, we are forced to reduce prices for our subscription offerings, our revenue and results of operations will be harmed. We may not be able 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 also have limited experience with respect to determining the optimal prices and pricing models for our solution. 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.

We generate revenue from sales outside of the United States, and we are therefore subject to a number of risks associated with international sales and operations. Challenges presented by international economic, political, legal, accounting and business factors could negatively affect our business, financial condition or results of operations.

Our business is subject to several risks associated with our non-U.S. operations. These risks may intensify to the extent we successfully scale our non-U.S. business. Accordingly, our future results could be materially and adversely affected by a variety of factors relating to our non-U.S. operations, including, among others, the following:

- fluctuations in foreign currency exchange rates;
- changes in a specific country's or region's economic conditions;
- political or social unrest;
- trade restrictions;
- import or export licensing requirements;
- the overlap of different tax structures or changes in international tax laws;
- changes in regulatory requirements;

- difficulties in staffing and managing international operations;
- stringent data protection regulations in some foreign countries;
- compliance with a variety of foreign laws and regulations; and
- longer payment cycles or collectability concerns in certain countries.

The occurrence of any one of these risks could harm our business and 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.

Sales to customers located outside of the United States represented 23% of our total revenue for both fiscal 2019 and fiscal 2018. We intend to continue to increase sales outside of the United States. In order to maintain and expand our sales internationally, we need to hire and train experienced personnel to staff and manage our foreign operations. To the extent that we experience difficulties in recruiting, training, managing and retaining international staff, and specifically sales management and sales personnel, we may experience difficulties in growing our international sales and operations. If we are not able to maintain successful partner relationships internationally, our future success in such markets could be limited. In addition, the costs associated with scaling our business outside the United States may be significant.

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

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 results of operations. 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, which could have an adverse impact on the results of our operations.

Due to the global nature of our business, we could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act or similar anti-bribery laws in other jurisdictions in which we operate, and various international trade and export laws.

Non-U.S. operations, particularly in those countries with developing economies, are also subject to risks of violations of laws prohibiting improper payments and bribery, including the U.S. Foreign Corrupt Practices Act, U.K. Bribery Act and similar anti-bribery laws in foreign jurisdictions, which generally prohibit U.S.-based companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business to non-U.S. officials, or in the case of the U.K. Bribery Act, to any person. Our global operations require us to import from and export to several countries, which geographically stretches our compliance obligations. In addition, changes in such laws could result in increased regulatory requirements and compliance costs which could adversely affect our business, financial condition and results of operations. Our employees, contractors and agents may take actions in violation of the U.S. Foreign Corrupt Practices Act, U.K. Bribery Act or other anti-bribery laws. Any such violations, even if due to acts or inadvertence of our employees, or due to the acts or inadvertence of others, could subject us to civil or criminal penalties or otherwise have an adverse effect on our business and reputation.

Our sales to government entities and highly regulated organizations are subject to a number of challenges and risks.

We sell to U.S. federal and state and foreign governmental agency customers, as well as to customers in highly regulated industries such as financial services, pharmaceuticals, insurance and healthcare. Sales to such entities are subject to a number of challenges and risks. Selling to such entities can be highly competitive, expensive and time-consuming, often requiring significant upfront time and expense without any assurance that these efforts will generate a sale. Government contracting requirements may change and in doing so restrict our ability to sell into the government sector until we have attained the revised certification. Government demand and payment for our offerings are affected by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our offerings.

Further, governmental and highly regulated entities may demand shorter subscription periods or other contract terms that differ from our standard arrangements, including terms that can lead those customers to obtain broader rights in our offerings than would be standard. Such entities may have statutory, contractual or other legal rights to terminate contracts with us or our partners due to a default or for other reasons, and any such termination may adversely affect our reputation, business results of operations and financial condition.

Because we recognize subscription revenue over the terms of our contracts, fluctuations in new transactions will not be immediately reflected in our operating results and may be difficult to discern. Professional services revenue may fluctuate significantly from period to period.

We generally recognize subscription revenue from customers ratably over the terms of their contracts, which are typically one to three years. As a result, most of the subscription revenue we report for each quarter is derived from the recognition of deferred revenue relating to subscriptions entered into during previous periods. Consequently, a decline in subscription sales in any single quarter would likely have only a small impact on our revenue for that quarter. However, such a decline would negatively affect our revenue in future quarters. Accordingly, the effect of significant downturns in transactions and market acceptance of our platform may not be fully apparent from our reported results of operations until future periods.

We may be unable to adjust our cost structure to reflect the changes in revenues. In addition, a significant portion of our costs is expensed as incurred, while subscription revenue is recognized over the applicable subscription term. 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 contracts. Our subscription model also makes it difficult for us to rapidly increase our revenue through additional transactions in any period, as revenue from new customers must be recognized over the applicable subscription term.

Professional services revenue is recognized as the services are performed or delivered, depending on the type of engagement. Professional services engagements often span from a few weeks to several months, which makes it somewhat difficult to predict the timing of revenue recognition for such services and the corresponding effects on our results of operations. Professional services revenue has fluctuated and may continue to fluctuate significantly from period to period. In addition, because professional services expenses are recognized as the services are performed or upon completion of the project, professional services and total margins can significantly fluctuate from period to period.

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

Under Generally Acceptable Accounting Principles ("GAAP"), we review our amortizable intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill or amortizable intangible assets may not be recoverable include a decline in our stock price and market capitalization, reduced future cash flow estimates and slower growth rates in our industry. We may be required to record a significant charge to earnings in our financial statements during the period in which any impairment of our goodwill or amortizable intangible assets is determined, which could harm our results of operations.

We may acquire other businesses which could require significant management attention, disrupt our business, dilute stockholder value and adversely affect our results of operations.

As part of our business strategy, we have in the past made, and may in the future make, acquisitions or investments in complementary companies, products and technologies that we believe fit within our business model and can address the needs of our customers and potential customers. In the future, we may not be able to acquire and integrate other companies, products or technologies in a successful manner. We may not be able to find suitable acquisition candidates, and we may not be able to complete such acquisitions on favorable terms, if at all. In addition, the pursuit of potential acquisitions may divert the attention of management and cause us to incur additional expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. If we do complete acquisitions, we may not ultimately strengthen our competitive position or achieve our goals, including increases in revenue, and any acquisitions we complete could be viewed negatively by our customers, investors and industry analysts.

Future acquisitions may reduce our cash available for operations and other uses. We may have to pay cash, incur debt or issue equity securities to pay for any such acquisition, each of which could adversely affect our financial condition or the value of our Class A common stock. The sale or issuance of equity to finance any such acquisitions would result in dilution to our stockholders. The incurrence of indebtedness to finance any such acquisition would result in increased fixed obligations and could also include covenants or other restrictions that would impede our ability to manage our operations. In addition, our future results of operations may be adversely affected by the dilutive effect of an acquisition, performance earnouts or contingent bonuses associated with an acquisition. Furthermore, acquisitions may require large, one-time charges and can result in increased debt, contingent liabilities, adverse tax consequences, additional stock-based compensation expenses, and the recording and subsequent amortization of amounts related to certain purchased intangible assets, any of which items could negatively affect our future results of operations. We may also incur goodwill impairment charges in the future if we do not realize the expected value of any such acquisitions.

We rely on third-party proprietary and open-source software for our offerings, and our inability to obtain third-party licenses for such software, or obtain them on favorable terms, or any errors or failures caused by such software could adversely affect our business, results of operations and financial condition.

Some of our offerings include software or other intellectual property licensed from third parties. It may be necessary in the future to renew licenses relating to various aspects of these applications or to seek new licenses for existing or new applications. There can be no assurance that the necessary licenses will be available on acceptable terms or under open-source licenses permitting redistribution in commercial offerings, if at all. The inability to obtain certain licenses or other rights or to obtain such licenses or rights on favorable terms, could result in delays in product releases until equivalent technology can be identified, licensed or developed, if at all, and integrated into our products and may have a material adverse effect on our business, results of operations and financial condition. In addition, third parties may allege that additional licenses are required for our use of their software or intellectual property, and we may be unable to obtain such licenses on commercially reasonable terms or at all. Moreover, the inclusion in our offerings of software or other intellectual property licensed from third parties on a non-exclusive basis could limit our ability to differentiate our offerings from those of our competitors. In addition, to the extent that our platform depends upon the successful operation of third-party software in conjunction with our software, any undetected errors or defects in such third-party software could prevent the deployment or impair the functionality of our platform, delay new feature introductions, result in a failure of our platform and injure our reputation.

Our use of open-source software could subject us to possible litigation or cause us to subject our platform to unwanted open-source license conditions that could negatively impact our sales.

A significant portion of our platform incorporates open-source software, and we will incorporate open-source software into other offerings or products in the future. Such open-source software is generally licensed by its authors or other third parties under open-source licenses. There is little legal precedent governing the interpretation of certain terms of these licenses, and therefore the potential impact of these terms on our business is unknown and may result in unanticipated obligations regarding our products and technologies. If an author or other third party that distributes such open-source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations. In addition, if we combine our proprietary software with open-source software in a certain manner, under some open-source licenses, we could be required to release the source code of our proprietary software, which could substantially help our competitors develop products that are similar to or better than ours.

Our products are based in large part on open source 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 products may not be reproduced or distributed, may negatively impact our distribution or development of all or a portion of our products. In addition, at some time in the future it is possible that the open-source cores of our products may be distributed under a different license or the Apache License 2.0 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.

We are subject to governmental export and import controls that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws.

Our offerings are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations and various economic and trade sanctions regulations administered by the U.S. Treasury Department’s Office of Foreign Assets Control. Exports of our offerings must be made in compliance with these laws and regulations. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges, fines which may be imposed on us and responsible employees or managers and, in extreme cases, the incarceration of responsible employees or managers. Obtaining the necessary authorizations, including any required license, for a particular sale may be time-consuming, is not guaranteed and may result in the delay or loss of sales opportunities. In addition, changes in our offerings or changes in applicable export or import regulations may create delays in the introduction and sale of our offerings in international markets, prevent our customers with international operations from deploying our offerings or, in some cases, prevent the export or import of our offerings to certain countries, governments or persons altogether. Any change in export or import regulations, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could also result in decreased use of our offerings, or in our decreased ability to export or sell our offerings to existing or potential customers with international operations. Any decreased use of our offerings or limitation on our ability to export or sell our offerings will likely adversely affect our business.

Furthermore, we incorporate encryption technology into certain of our offerings. Various countries regulate the import of certain encryption technology, including through import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our offerings or could limit our customers' ability to implement our offerings in those countries. Encrypted products and the underlying technology may also be subject to export control restrictions. Governmental regulation of encryption technology and regulation of imports or exports of encryption products, or our failure to obtain required import or export approval for our offerings, when applicable, could harm our international sales and adversely affect our revenue. Compliance with applicable regulatory requirements regarding the export of our offerings, including with respect to new releases of our offerings, may create delays in the introduction of our offerings in international markets, prevent our customers with international operations from deploying our products throughout their globally-distributed systems or, in some cases, prevent the export of our offerings to some countries altogether.

Moreover, U.S. export control laws and economic sanctions programs prohibit the shipment of certain applications and services to countries, governments and persons that are subject to U.S. economic embargoes and trade sanctions. Any violations of such economic embargoes and trade sanction regulations could have negative consequences, including government investigations, penalties and reputational harm.

If we are unable to protect our intellectual property rights, our competitive position could be harmed or we could be required to incur significant expenses to enforce our rights.

Our ability to protect our intellectual property affects the success of our business. We rely on trade secret, patent, copyright and trademark laws and confidentiality agreements with our personnel and third parties, all of which offer only limited protection. The steps we have taken to protect our proprietary rights may not be adequate to preclude misappropriation of our proprietary information or infringement of our intellectual property rights, and our ability to police such misappropriation or infringement is uncertain, particularly in countries outside of the United States. 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. Even if patents are issued from our patent applications, which is not certain, they may be contested, circumvented or invalidated in the future. Moreover, the rights granted under any issued patents, such as in connection with open-source software, may not provide us with proprietary protection or competitive advantages, and, as with any technology, competitors may be able to develop similar or superior technologies to our own now or in the future. In addition, we rely on contractual and license agreements with third parties in connection with their use of our products and technology. There is no guarantee that such parties will abide by the terms of such agreements or that we will be able to adequately enforce our rights.

Detecting and protecting against the unauthorized use of our products, technology and proprietary rights is expensive, difficult and, in some cases, impossible. Litigation may be necessary in the future to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Such litigation could result in substantial costs and diversion of management resources, either of which could harm our business, results of operations and financial condition, and there is no guarantee that we would be successful. Furthermore, many of our current and potential competitors have the ability to dedicate substantially greater resources to protecting their technology or intellectual property rights than we do. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property, which could result in a substantial loss of our market share.

Claims by others that we or our customers, whose software applications we helped to create, infringe the proprietary technology of such other persons could force us to pay damages or prevent us from using certain technology in our products.

Third parties could claim that our products or technology infringe their proprietary rights. This risk may increase as the number of products and competitors in our market increases and overlaps occur. Any claim of infringement by a third party, even one without merit, could cause us to incur substantial costs defending against the claim, and could distract our management from our business. Furthermore, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages. A judgment could also include an injunction or other court order that could prevent us from offering our products. In addition, we might be required to seek a license for the use of such intellectual property, which may not be available on commercially reasonable terms or at all. Alternatively, we may be required to develop non-infringing technology, which could require significant effort and expense and may ultimately not be successful. We have received, or may in the future receive, notices alleging that we have misappropriated, misused or infringed other parties' intellectual property rights, including allegations made by our competitors or by non-practicing entities, and, to the extent we gain greater market visibility, we face a higher risk of being the subject of intellectual property infringement assertions. Any of these events could seriously harm our business, results of operations and financial condition.

Third parties may also assert infringement claims against our customers and strategic partners. Any of these claims could require us to initiate or defend potentially protracted and costly litigation on their behalf, regardless of the merits of these claims, because we generally indemnify our customers and strategic partners from claims of infringement of proprietary rights of third parties in connection with the use of our products. If any of these claims succeed, we may be forced to pay damages on behalf of our customers or strategic partners, which could materially affect our results of operations and cash flows.

Our business could be materially adversely affected as a result of war, acts of terrorism, natural disasters or climate change.

War, acts of terrorism and natural disasters, such as an earthquake, may cause damage or disruption to our employees, facilities, customers and partners, which could have a material adverse effect on our business, results of operations or financial condition. Such events may also cause damage or disruption to transportation and communication systems and to our ability to manage logistics in such an environment. These risks may be heightened due to the location of our headquarters in the San Francisco Bay Area, an area known for seismic activity.

Investments made in our growth may not achieve the expected associated benefits on a timely basis or at all.

We have experienced, and may continue to experience, rapid growth and organizational change, which has placed, and may continue to place, significant demands on our management and our operational and financial resources. Additionally, we continue to increase the breadth and scope of our offerings and our operations. To support this growth, and to manage any future growth effectively, we must continue to improve our IT and financial infrastructures, our operating and administrative systems and our ability to manage headcount, capital and internal processes in an efficient manner. Our organizational structure is also becoming more complex as we grow our operational, financial and management infrastructure and we must continue to improve our internal controls as well as our reporting systems and procedures. We intend to continue to invest to expand our business, including investing in research and development and sales and marketing operations, hiring additional personnel, improving our internal controls, reporting systems and procedures, upgrading our infrastructure and increasing our office space. If we do not achieve the benefits anticipated from these investments, or if the achievement of these benefits is delayed, our results of operation may be adversely affected.

Operating as a public company, including maintaining effective internal control over financial reporting, requires us to incur substantial costs and requires substantial management attention. In addition, our management team has limited experience managing a public company .

As a public company, we incur substantial legal, accounting and other expenses that we did not incur as a private company, particularly one that had operated as part of a larger corporate organization. For example, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act and the rules and regulations of the SEC. Stock exchange rules also apply to us. As part of the new requirements, we will need to maintain effective disclosure and internal controls and make changes to our corporate governance practices. Compliance with these requirements is increasing our legal and financial compliance costs and is making some activities more time-consuming.

Most of our management and other personnel have limited experience managing a public company and preparing public filings. Our management and other personnel will need to divert attention from other business matters to devote substantial time to the reporting and other requirements of being a public company. In particular, we are incurring significant expense and devoting substantial management effort to complying with the requirements of Section 404 of the Sarbanes-Oxley Act when applicable. 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 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 other aspects of our internal control over financial reporting. We may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge.

We are implementing several new systems and process improvements as part of our increased independence from Dell. If these new systems or processes prove ineffective or inadequate, or if we fail to successfully implement them, our business and results of operations may suffer.

We implemented several new systems during the last two years to support our operations, and are continuing to implement technology and process improvements. For example we implemented new systems and processes and added personnel for enterprise resource planning, invoicing, accounts receivable, accounts payable, human capital management and payroll and benefits. We previously received some of these services from Dell and certain of its subsidiaries.

There can be no assurance that our operation of such systems will continue to be successful. We may be unable to implement or operate these systems and processes or add personnel in a timely and cost-effective manner.

We may require additional financing in the future and may not be able to obtain such financing on favorable terms, if at all, which could slow or stop our ability to grow or otherwise harm our business.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, improve our operating infrastructure or acquire complementary businesses and technologies. We financed our operations primarily through equity financings, including our IPO, and before that through the accumulation of a net payable due to Dell, which was subsequently converted into equity, and through funds borrowed under our revolving credit facility. We may not be able to obtain additional financing on terms favorable to us, if at all. We may need to engage in equity or debt financings to secure additional funds. If we raise additional equity financing, our stockholders may experience significant dilution of their ownership interests and the per share value of our Class A common stock could decline. There can be no assurance that we will be able to meet the conditions necessary to obtain loans under our existing revolving credit facility or any future debt financing arrangement. In addition, with respect to debt financing transactions, the holders of debt would have priority over the holders of our common stock, and we may be required to accept terms that restrict our ability to incur additional indebtedness and our ability to operate our business. 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, financial condition and operating results. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be adversely affected.

Our future quarterly results and key metrics may fluctuate significantly and may be difficult to predict, and if we fail to meet the expectations of analysts or investors, our stock price and the value of your investment could decline substantially.

Our results of operations, including our revenue, operating expenses and cash flows, as well as our key metrics (including our dollar-based net expansion rate), have fluctuated from quarter to quarter in the past and may continue to fluctuate as a result of a variety of factors, many of which are outside of our control, may be difficult to predict and may or may not fully reflect the underlying performance of our business. Some of the factors that may cause our results of operations to fluctuate from quarter to quarter include:

- our ability to attract new customers;
- our ability to retain existing customers and expand their use of our platform;
- our ability to successfully execute our partner strategy;
- success of our pricing strategy;
- changes in customers’ budgets and in the timing of their purchasing decisions;
- the focus of our sales force;
- the timing, terms and size of our initial and subsequent transactions with customers;
- our ability to successfully expand our business internationally;
- seasonal and end-of-quarter concentration of our transactions;
- our adoption of a 52- or 53-week fiscal year which may change the date of the last day of each of our fiscal quarters each fiscal year;
- the timing and success of new products, features and services by us and our competitors or any other change in the competitive dynamics of our industry, including consolidation among competitors, customers or ecosystem partners;
- changes in the enterprise software technology landscape that could cause us to increase or accelerate our spending on engineering resources and personnel;
- customer satisfaction with the functionality, features, performance and pricing of our products and service offerings;

- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our software or services;
- our ability to leverage the synergies between Labs and PCF and increase subscription revenue as a percentage of revenue;
- consolidation of our customer base;
- our ability to fully utilize our strategic services resources;
- potential asset impairments, charges or other expenses;
- potential claims or litigation;
- the collectability of receivables;
- general economic conditions, both domestically and internationally, as well as economic conditions specifically affecting industries in which our customers participate;
- the impact of new accounting pronouncements; and
- foreign currency exchange rate fluctuations.

We realigned our fiscal calendar to coincide with Dell's fiscal calendar. This realignment could adversely impact our business and results of operations.

Prior to February 2017, the fiscal calendars for Dell and Pivotal did not align. We reported on a calendar year basis through December 31, 2016, whereas Dell reports on a 4-5-5 Fiscal Year. Following Dell's acquisition of EMC Corporation in September 2016, we changed our fiscal calendar effective January 1, 2017 so that our fiscal calendar would align with that of Dell.

Our new fiscal year is more typical for companies in the retail sector and less typical for software companies. Seasonal buying patterns in the software sector tend to be concentrated in the fourth calendar quarter of the year and, within each quarter, in the last two weeks of that quarter. It is possible that the change in fiscal year could negatively impact the performance of our sales force and the purchasing activities of our customers.

Furthermore, the invoicing of sales may or may not occur before the end of the fiscal quarter as a result of our adoption of a 4-4-5 Fiscal Year. This arises when the last day of a fiscal quarter is not the same date as the last day of the same fiscal quarter from the prior year. This type of change can shift our deferred revenue and billings from one period to another given the change in date of the quarter end, particularly since a relatively large number of sales occur at the end of the quarter.

As a result of our adoption of a 4-4-5 Fiscal Year, the impact of seasonal factors that we have observed in our business may be compounded by end of fiscal quarter or end of fiscal year purchases by our customers and the timing of holiday and vacation periods on our quarterly results. Consequently, it may be difficult to accurately determine the extent to which year-over-year changes in our financial results represent actual changes to business conditions and trends.

Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

GAAP are subject to interpretation by the Financial Accounting Standards Board (the "FASB"), the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results for periods prior to and subsequent to such change, and could affect the reporting of transactions completed before the announcement of a change.

For example, in May 2014, the FASB issued ASC 606, which superseded the revenue recognition requirements in ASC 605, *Revenue Recognition* . We adopted this standard and its impact is reflected in our consolidated financial statements, which includes several newly required disclosures. Market practices with respect to these disclosures are still evolving, and securities analysts and investors may not fully understand the implications of our disclosures or how or why they may differ from similar disclosures by other companies. Any additional new accounting standards could have a significant effect on our reported results. If our reported results fall below analyst or investor expectations, our stock price could decline.

We are an emerging growth company and the reduced disclosure requirements applicable to emerging growth companies may make our Class A common stock less attractive to investors .

We are an emerging growth company as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we intend to take advantage of some of the exemptions from the reporting requirements applicable to other public companies. For example, we intend to take advantage of the exemption from the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, the reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and the exemptions from the requirements of holding a non-binding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. It is possible that investors will find our Class A common stock less attractive as a result of our reliance on these exemptions. If so, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

Our business is subject to a wide range of laws and regulations, including privacy and data protection laws, and our failure to comply with those laws and regulations could harm our business, results of operations and financial condition .

Our business is subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, product safety, environmental laws, consumer protection laws, anti-bribery laws, import and export controls, federal securities laws and tax laws and regulations. In certain foreign jurisdictions, these regulatory requirements may be more stringent than those in the United States. These laws and regulations are subject to change over time and thus we must continue to monitor and dedicate resources to ensure continued compliance.

In addition, our business is subject to regulation by various federal, state and foreign governmental agencies responsible for monitoring and enforcing privacy and data protection laws. The regulatory framework for privacy issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future, as many new laws and regulations regarding the collection, use and disclosure of personal information have been adopted or are under consideration and existing laws and regulations may be subject to new and changing interpretations. In the United States, these include rules and regulations promulgated under the authority of the Federal Trade Commission, and state breach notification laws. Internationally, many of the jurisdictions in which we operate have established their own data security and privacy legal framework with which we or our customers must comply. We expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security in the United States, the European Union (the "E.U.") and other jurisdictions, and we cannot yet determine the impacts such future laws, regulations and standards may have on our business or the businesses of our customers.

Non-compliance with applicable regulations or requirements could subject us to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties or injunctions. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations, and financial condition could be materially adversely affected. In addition, responding to any action will likely result in a significant diversion of management’s attention and resources and an increase in professional fees. Enforcement actions and sanctions could harm our business, results of operations and financial condition. Furthermore, the costs of compliance with, and other burdens imposed by, the laws, regulations and policies that are applicable to the businesses of our customers may limit the use and adoption of, and reduce the overall demand for, our software.

In addition to government regulation, privacy advocates and industry groups have established or may establish new self-regulatory standards that may place additional burdens on us. Our customers may contractually obligate or expect us to meet voluntary certification or other standards established by such third parties, and if we are unable to meet these standards, it could adversely affect our ability to provide our solutions to certain customers and could harm our business.

Risks Related to Our Relationship with Dell and VMware

Holders of our Class A common stock have limited ability to influence matters requiring stockholder approval.

Dell owns 175,514,272 shares of our outstanding Class B common stock, which represent approximately 66.1% of our total outstanding shares of common stock and approximately 95.1% of the combined voting power of both classes of our outstanding common stock (subject to certain exceptions, including with respect to the election of directors, certain actions to convert the Class B common stock and certain actions that require the consent of the holders of the Class B common stock) as of February 1, 2019. Our Class B common stock has ten votes per share, and our Class A common stock, which is our publicly traded stock, has one vote per share, subject to certain exceptions. Moreover, the holders of Class B common stock, voting as a separate class, are entitled to elect at least 80% of the total number of directors that we would have if there were no vacancies on our board of directors at such time. Subject to any rights of any series of preferred stock to elect directors, the holders of Class A common stock and the holders of Class B common stock, voting together as a single class, are entitled to elect our remaining directors with each share of Class A common stock and each share of Class B common stock entitled to one vote per share in any such election. Accordingly, Dell will control the vote to elect all of our directors and to approve or disapprove all other matters submitted to a stockholder vote.

In addition, our amended and restated certificate of incorporation and our master transaction agreement with Dell provide that until such time as Dell (or a successor entity) and its subsidiaries (the "Dell Entities") cease to beneficially own in the aggregate shares of our capital stock representing at least 30% of the votes entitled to be cast by our issued and outstanding capital stock, voting together as a single class with each share of Class B common stock having ten votes and each share of Class A common stock having one vote (the "Voting Power"), or no shares of our Class B common stock remain outstanding, the prior affirmative vote of the holders of a majority of the outstanding shares of Class B common stock, voting as a separate class, is required in order to authorize us to take certain actions, including, subject to certain exceptions:

- adopting or implementing any stockholder rights plan or similar takeover defense measure;
- entering into a merger, consolidation, business combination or sale of all or substantially all of our assets, or selling, transferring or licensing any of our business, operations or intellectual property for aggregate consideration in excess of $100 million in any calendar-year period;
- acquiring the stock or assets of another entity in transactions involving in excess of $250 million;
- issuing any capital stock or stock equivalent except to our subsidiaries, pursuant to the conversion, exercise or exchange of any outstanding stock equivalent or pursuant to our employee benefit or compensation plans;
- authorizing the aggregate amount of our equity awards to be granted in any fiscal year;
- taking any actions to dissolve, liquidate or wind up our company;
- declaring dividends on our stock;
- entering into any exclusive or exclusionary arrangement with a third party involving, in whole or in part, products or services that are similar to those of Dell;
- approving, amending or repealing our amended and restated certificate of incorporation or bylaws, or the certificate of incorporation or bylaws of certain of our subsidiaries;
- acquiring the business, operations, securities or indebtedness of another entity for consideration in excess of $250 million in any calendar-year period;
- incurring indebtedness in excess of $200 million;
- approving, modifying or terminating any employee equity or pension plan;
- entering into any legal settlement resulting in payment by us in excess of $100 million or that would impose limitations on our operations that would reasonably be expected to have a material adverse effect on us; and
- entering into any other types of transactions involving consideration in excess of $100 million.

If Dell or any other holders of our outstanding Class B common stock do not provide any requisite affirmative vote on matters requiring stockholder approval or any requisite consent, in each case allowing us to conduct such activities when requested, we will not be able to conduct such activities and, as a result, our business and our results of operations may be adversely affected.

Dell has the ability to prevent a change in control transaction and may sell control of Pivotal without benefiting other stockholders.

Dell's voting control and the consent rights of holders of our Class B common stock give Dell the ability to prevent transactions that would result in a change in control of Pivotal, including transactions in which holders of our Class A common stock might otherwise receive a premium for their shares over the then-current market price. In addition, Dell is not prohibited from selling a controlling interest in us to a third party and may do so without the approval of the holders of our Class A common stock and without providing for a purchase of any shares of Class A common stock held by persons other than Dell. Accordingly, shares of Class A common stock may be worth less than they would be if Dell did not maintain voting control over us.

Dell's ability to control our board of directors may make it difficult for us to recruit independent directors.

Our board of directors is divided into two groups, Group I and Group II. The holders of Class B common stock, voting as a separate class, are entitled to elect our Group I directors, who will constitute at least 80% of the total number of authorized directors. Subject to any rights of any series of preferred stock to elect directors, the holders of Class A common stock and the holders of Class B common stock, voting together as a single class, are entitled to elect our remaining Group II directors, with each share of Class A common stock and each share of Class B common stock entitled to one vote per share in any such election. If at any time or from time to time any Group I directorship is vacant, one of the existing Group I directors to be designated in writing by Dell will be entitled to cast, on all matters upon which a vote or consent of the board of directors is taken, a number of votes equal to one plus the number of vacant Group I directorships then existing, and all other directors will be entitled to cast one vote. There are currently three vacant Group I directorships. Mr. Dell is the initial Group I director entitled to cast one vote for each such vacant directorship and, as a result, is entitled to cast four votes on any matter submitted to a vote of our board of directors. So long as Dell beneficially owns shares of our common stock representing a majority of the votes entitled to be cast in the election of our Group I and Group II directors, Dell can effectively control and direct our board of directors. Further, the interests of Dell and our other stockholders may diverge. Under these circumstances, it may become difficult for us to recruit independent directors.

We engage in related party transactions with Dell and/or VMware that may divert our resources, create opportunity costs and prove to be unsuccessful.

We currently engage in a number of related party transactions with Dell and VMware through our joint marketing and sales of our products and services and our mutually beneficial commercial and go-to-market relationships, and we expect to engage in additional related party transactions with Dell and VMware to leverage the benefits of our strategic alignment, including our joint efforts with VMware concerning Pivotal Container Service ("PKS"). Our participation in these transactions may prove not to be successful, may create go-to-market complexity, may divert our resources or the attention of our management from other opportunities, and may cause certain of our other vendors and ecosystem partners who compete with Dell and its subsidiaries and VMware to also view us as their competitors. We also cannot predict whether our stockholders and industry or securities analysts will react positively to announcements of new related party transactions.

Dell and VMware may compete with us, which could reduce our market share.

There can be no assurance that Dell or VMware will not compete with us in the future. None of our agreements with Dell or VMware contain any restrictions on their ability to compete with us.

Dell could also assert control over us in a manner which could impede our growth or our ability to enter new markets or otherwise adversely affect our business. Further, Dell could utilize its control over us to cause us to take or refrain from taking certain actions, including entering into relationships with strategic, technology and other marketing partners, enforcing our intellectual property rights or pursuing corporate opportunities or product development initiatives that could adversely affect our competitive position, including our competitive position relative to that of Dell or VMware in markets where we compete with them.

Conflicts of interest may arise because some of our directors and officers own stock or other equity interests in Dell or VMware and hold management positions with Dell or VMware.

Some of our directors and officers own stock or other equity interests in Dell or VMware. In addition, some of our directors are officers or directors of Dell or VMware. Ownership of such equity interests by our directors and officers and the presence of executive officers or directors of Dell or VMware on our board of directors could create, or appear to create, conflicts of interest with respect to matters involving both us and any one of them that could have different implications for any of these investors than they do for us. Provisions of our amended and restated certificate of incorporation address corporate opportunities that are presented to our directors and officers that are also directors of officers of Dell or VMware. We cannot assure you that our amended and restated certificate of incorporation will adequately address potential conflicts of interest or that potential conflicts of interest will be resolved in our favor or that we will be able to take advantage of corporate opportunities presented to individuals who are officers or directors of both us and Dell or VMware. As a result, we may be precluded from pursuing certain advantageous transactions or growth initiatives.

Our inability to resolve in a manner favorable to us any potential conflicts or disputes that arise between us and Dell or its subsidiaries with respect to our past and ongoing relationships may adversely affect our business and prospects.

Potential conflicts or disputes may arise between Dell or its subsidiaries and us in a number of areas relating to our past or ongoing relationships, including:

- actual or anticipated variations in our quarterly or annual results of operations;
- tax, employee benefit, indemnification and other matters arising from our relationship with Dell or its subsidiaries;
- business combinations involving us;
- our ability to engage in activities with certain ecosystem partners;
- sales or dispositions by either of Dell or VMware of all or any portion of their beneficial ownership interest in us;
- the nature, quality and pricing of services Dell or its subsidiaries have agreed to provide us;
- business opportunities that may be attractive to us and Dell or its subsidiaries;
- intellectual property or other proprietary rights; and
- joint sales and marketing activities with Dell or its subsidiaries.

The resolution of any potential conflicts or disputes between us and Dell or its subsidiaries over these or other matters may be less favorable to us than the resolution we might achieve if we were dealing with an unaffiliated party.

The agreements we have entered into with Dell and certain of its subsidiaries are of varying durations and may be amended upon agreement of the parties. The terms of these agreements were primarily determined by Dell or its subsidiaries, and therefore may not be representative of the terms we could obtain on a stand-alone basis or in negotiations with an unaffiliated third party. For so long as we are controlled by Dell, we may not be able to negotiate renewals or amendments to these agreements, if required, on terms as favorable to us as those we would be able to negotiate with an unaffiliated third party.

We are a "controlled company" within the meaning of the New York Stock Exchange rules and, as a result, we qualify for and rely on exemptions from certain corporate governance requirements. Accordingly, holders of our Class A common stock will not have the same protections afforded to stockholders of companies that are subject to such requirements.

Dell owns, indirectly through its subsidiaries (including VMware), none of the outstanding shares of our Class A common stock and all of the shares of our Class B common stock, representing 66.1% of the total outstanding shares of common stock or 95.1% of the combined voting power of the outstanding common stock (subject to certain exceptions, including with respect to the election of directors, certain actions to convert the Class B common stock and certain actions that require the consent of the holders of the Class B common stock). Through its control of shares of common stock representing a majority of the votes entitled to be cast in the election of our Group I and Group II directors, Dell controls the vote to elect all of our directors. As a result, we are a "controlled company" within the meaning of the New York Stock Exchange rules. Under these rules, a "controlled company" may elect not to comply with certain corporate governance requirements, including the requirements that, within one year of the closing of an initial public offering, a listed company have a:

- board that is composed of a majority of "independent directors," as defined under the rules of the New York Stock Exchange;

- compensation committee that is composed entirely of independent directors; and

- nominating and corporate governance committee that is composed entirely of independent directors.

We are utilizing these exemptions. Our board of directors does not have a majority of independent directors and only our audit committee is subject to requirements under SEC and New York Stock Exchange rules to consist entirely of independent directors, subject to the phase-in rules of the New York Stock Exchange. Accordingly, holders of our Class A common stock do not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the New York Stock Exchange.

We utilize our contractual arrangements with our strategic partners to facilitate and expedite a significant portion of our revenue.

Transactions primarily driven by our direct sales force and processed through our strategic partners under our agency agreements with Dell and VMware accounted for 36% , 37% and 44% of our total revenue in fiscal 2019, fiscal 2018 and fiscal 2017, respectively. We rely on these agency agreements to expedite and facilitate the sales of our products and services. Any adverse changes in our joint sales arrangements or the effectiveness of such arrangements with Dell or VMware could have a material impact on our results of operations.

Our stock price could be impacted by the reported results and other statements of Dell.

As the majority owner of our stock, Dell includes our accounts in its consolidated financial statements, subject to non-controlling interest adjustments to eliminate the portion of our accounts that are attributable to other stockholders outside of the Dell consolidated group of companies. Such non-controlling interest adjustments include those pertaining to both Pivotal and other companies for which Dell is a less than 100% owner. Dell does not report Pivotal's financial information as a standalone segment. Accordingly, any information about Pivotal that is included in Dell's financial statements or other public statements is necessarily limited. Nevertheless, the information provided or the conclusions that investors or analysts draw from such information could have an adverse impact on the trading price of our Class A common stock.

Third parties may seek to hold us responsible for liabilities of Dell or VMware, which could result in a decrease in our income.

Third parties may seek to hold us responsible for liabilities of Dell or VMware. Under the original contribution agreements with Dell and VMware pursuant to which Dell and VMware contributed certain of their businesses to us when we were first formed, Dell and VMware agreed to indemnify us for claims and losses relating to liabilities related to Dell's and VMware's businesses and not related to our business. The original contribution agreements have no set terms, and these indemnification obligations will continue indefinitely except to the extent limited by law or the mutual agreement of the parties. In addition, under the master transaction agreement, we will indemnify Dell for claims and losses relating to liabilities related to our business. If those liabilities are significant and we are ultimately held liable for them, we cannot assure you that we will be able to recover the full amount of our losses from Dell or VMware.

Dell or VMware's competitive position in certain markets may constrain our ability to build and maintain partnerships.

Our existing and potential partner relationships may be negatively affected by our relationships with Dell and VMware, our largest stockholders. We do and may partner with companies that compete with Dell or VMware in certain markets. Dell's control over us and VMware may affect our ability to effectively partner with these companies. These companies may favor our competitors because of our relationship with Dell and VMware.

To preserve Dell's ability to conduct a tax-free distribution of the shares of our Class B common stock that it beneficially owns, we may be prevented from pursuing opportunities to raise capital, acquire other companies or undertake other transactions, which could hurt our ability to grow.

To preserve its ability to effect a future tax-free spin-off of us, or certain other tax-free transactions involving us, Dell is required to maintain "control" of us within the meaning of Section 368(c) of the Internal Revenue Code, which is defined as 80% of the total voting power and 80% of each class of nonvoting stock. We entered into a tax sharing agreement with Dell, which restricts our ability to issue any stock, issue any instrument that is convertible, exercisable or exchangeable into any of our stock or which may be deemed to be equity for tax purposes, or take any other action that would be reasonably expected to cause Dell to beneficially own stock in us that, on a fully diluted basis, does not constitute "control" within the meaning of Section 368(c) of the Internal Revenue Code. We also agreed to indemnify Dell for any breach by us of the tax sharing agreement. Additionally, under our amended and restated certificate of incorporation and the master transaction agreement, until such time as the Dell Entities cease to beneficially own in the aggregate shares of our capital stock representing at least 30% of the Voting Power or no shares of our Class B common stock remain outstanding, the prior affirmative vote of the holders of a majority of the outstanding shares of Class B common stock, voting as a separate class, is required in order to authorize us to issue stock or other securities, subject to certain exceptions. We also agreed to indemnify Dell for any breach by us of the master transaction agreement. As a result, we may be prevented from raising equity capital or pursuing acquisitions or other growth initiatives that involve issuing equity securities as consideration.

Our net operating loss carryforwards and other tax assets prior to our initial public offering are generally unavailable for our use.

Since fiscal 2014, our U.S. federal and state net operating losses and research credits and foreign tax credits were fully applied against Dell’s consolidated returns as we were included in the group consolidated U.S. federal and state income tax returns. As a result of our IPO, we left Dell's U.S. federal and certain state returns and all tax assets which had been utilized in the group return were reduced to the actual balances we will carry into our separate returns. Certain state net operating loss carryforwards are still reflected on a separate return basis and would be reduced in a similar manner if we were to leave those group returns. We will continue to maintain a valuation allowance for such net operating loss carryforwards and credits. Pursuant to our tax sharing agreement with Dell, we are limited in our ability to carryback net operating losses. Additionally, recently-enacted U.S. federal tax reform may limit our ability to use future net operating losses.

We could be held liable for the tax liabilities of other members of Dell's consolidated tax group.

When we become subject to income tax audits for any periods when we were a member of Dell's group return, the tax sharing agreement provides that Dell has authority to control the audit and represent Dell's and our interests to the tax authority. Accordingly, if we and Dell differ on appropriate responses and positions to take with respect to tax questions that may arise in the course of an audit, our ability to affect the outcome of such audits may be impaired.

Each member of a consolidated group during any part of a consolidated return year is jointly and severally liable for tax on the consolidated return of such year and for any subsequently determined deficiency thereon. Similarly, in some jurisdictions, each member of a consolidated, combined or unitary return for state, local or non-U.S. income tax purposes is jointly and severally liable for the state, local or non-U.S. income tax liability of each other member of the consolidated, combined or unitary return. Accordingly, for any period in which we were included in the Dell consolidated return for U.S. federal income tax purposes or any other consolidated, combined or unitary return of Dell and its subsidiaries, we could be liable in the event that any income tax liability was incurred, but not discharged, by any other member of any such return. In addition, if a distribution by Dell of our Class B common stock fails to qualify as a tax-free spin-off, and neither we nor Dell has breached the tax sharing agreement, we will generally be liable for 50% of any resulting tax.

Risks Related to Ownership of Our Class A Common Stock

An active trading market for our Class A common stock may not continue or be sustained.

Although our Class A common stock is listed on the New York Stock Exchange under the symbol PVTL, we cannot assure you that an active trading market for our Class A common stock will continue on that exchange or elsewhere or that any market will be sustained. Accordingly, we cannot assure you of the likelihood of your ability to sell your shares of Class A common stock when desired, the prices that you may be able to obtain for your shares or the liquidity of any trading market.

The price of our Class A common stock may be volatile, which could cause the value of your investment to decline .

Technology stocks have historically experienced high levels of volatility. The trading price of our Class A common stock is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose all or part of your investment in our Class A common stock. Factors that may cause the market price of our Class A common stock to fluctuate include:

- announcements of new offerings, services or technologies, relationships with partners, acquisitions or other events by us or our competitors;
- changes in economic conditions;
- price and volume fluctuations in the overall stock market from time to time;
- significant volatility in the market price and trading volume of technology companies in general and of companies in our industry;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes or fluctuations in our results of operations or other key metrics;
- whether our results of operations or other key metrics meet the expectations of securities analysts or investors;
- actual or anticipated changes in the expectations of investors or securities analysts;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- developments or disputes concerning our intellectual property or other proprietary rights;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- regulatory developments in the United States, foreign countries or both;
- major catastrophic events in our domestic and foreign markets;
- sales of large blocks of our stock; and
- departures of key personnel.

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

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. If our Class A common stock price is volatile, we may become the target of securities litigation. Securities litigation could result in substantial costs and divert our management's attention and resources from our business, and this could have a material adverse effect on our business, results of operations and financial condition.

Sales of a substantial number of shares of our Class A common stock in the public market by our existing stockholders could cause the price of our Class A common stock to decline .

Sales of a substantial number of shares of our Class A common stock in the public market, or the perception that these sales might occur, could depress the price of our Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. We cannot predict the effect that sales may have on the prevailing price of our Class A common stock.

All of the shares of common stock issuable upon the exercise of stock options, and the shares reserved for future issuance under our equity incentive plans, are registered for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market upon issuance, subject to applicable vesting requirements.

As of February 1, 2019, holders of up to approximately 265.6 million shares of our Class A common stock (including shares issuable upon conversion of Class B common stock) will have rights, subject to certain conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We have also registered the offer and sale of all shares of capital stock that we may issue under our equity compensation plans.

Future sales and issuances of our common stock or rights to purchase common stock could result in additional dilution to our stockholders and could cause the price of our Class A common stock to decline.

We may issue additional Class A or Class B common stock, convertible securities or other equity in the future. We also expect to issue Class A common stock to our employees, directors and other service providers pursuant to our equity incentive plans. Such issuances could be dilutive to investors and could cause the price of our Class A common stock to decline. If we seek to engage in additional equity financing, we may not be able to obtain such financing on favorable terms, if at all. New investors in such issuances could receive rights senior to those of holders of our Class A common stock.

The difference in the voting rights of our classes of capital stock may harm the value and liquidity of our Class A common stock.

Our Class B common stock has ten votes per share, and our Class A common stock has one vote per share. The difference in the voting rights of the Class A common stock and the Class B common stock could harm the value of the Class A common stock to the extent that any current or future investor in our common stock ascribes value to the voting rights associated with the Class B common stock. The existence of dual classes of our common stock could result in less liquidity for any such class than if there were only one class of our capital stock.

The dual class structure of our common stock may adversely affect the trading price of our Class A common stock.

Our Class B common stock has ten votes per share and our Class A common stock, which is our publicly traded stock, has one vote per share subject to certain exceptions, including with respect to the election of directors, certain actions to convert the Class B common stock and certain actions that require the consent of the holders of the Class B common stock. As discussed in "Risk Factors-Holders of our Class A common stock have limited ability to influence matters requiring stockholder approval," these differences in voting rights may adversely affect the market price of our Class A common stock.

In addition, in 2017, FTSE Russell and S&P Dow Jones announced changes to their eligibility criteria for inclusion of shares of public companies on certain indices to exclude companies with multiple classes of shares of common stock from being added to such indices. FTSE Russell announced plans to require new constituents of its indices to have at least five percent of their voting rights in the hands of public stockholders, whereas S&P Dow Jones announced that companies with multiple share classes, such as ours, will not be eligible for inclusion in the S&P 500, S&P MidCap 400 and S&P SmallCap 600, which together make up the S&P Composite 1500. In 2017, MSCI also opened public consultations on their treatment of no-vote and multi-class structures and temporarily barred new multi-class listings from its ACWI Investable Market Index and U.S. Investable Market 2500 Index. After an 18-month consultation period, MSCI decided to continue to include companies with no-vote and multi-class structures on their indices, although they will also launch a new index series that will include voting rights in the eligibility criteria and construction methodology. We cannot assure you that other stock indices will take a similar approach to MSCI and not follow FTSE Russell and S&P Dow Jones in the future. Under the announced policies, our dual class capital structure would make us ineligible for inclusion in many of these indices and, as a result, mutual funds, exchange-traded funds and other investment vehicles that attempt to passively track these indices will not invest in our stock. These policies are new and it is unclear what effect, if any, they will have on the valuations of publicly traded companies excluded from the indices, but it is possible that they may depress these valuations compared to those of other similar companies that are included.

We do not expect to pay any cash dividends for the foreseeable future. Investors may never obtain a return on their investment.

We have never paid dividends to our stockholders. Anyone considering investing in our Class A common stock should not rely on such investment to provide dividend income. We do not anticipate that we will pay any cash dividends to holders of Class A common stock in the foreseeable future. Instead, we currently plan to retain any earnings to maintain and expand our existing operations. In addition, our current revolving credit facility and future debt financing arrangements contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase the Class A common stock.

Delaware law and our amended and restated certificate of incorporation and bylaws contain anti-takeover provisions that could delay or discourage takeover attempts that stockholders may consider favorable.

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:

- the provision that our Class B common stock is generally entitled to ten votes per share, while our Class A common stock is entitled to one vote per share, subject to certain exceptions, enabling Dell, as the beneficial owner of all outstanding shares of our Class B common stock and a majority of the outstanding shares of our Class A common stock, to control the outcome of substantially all matters submitted to a vote of our stockholders, including the election of directors;

- the provision that, so long as any shares of our Class B common stock are outstanding, the holders of shares of our Class B common stock, voting as a separate class, will be entitled to elect at least 80% of our directors, and that Dell may designate a Group I director that will be entitled to cast, on all matters upon which a vote or consent of the board of directors is taken, a number of votes equal to one plus the number of vacant Group I directorships then existing;

- the provision that any merger, consolidation, business combination or sale of all or substantially all of our assets must be approved by the holders of a majority of the outstanding shares of our Class B common stock until such time (if any) as the Dell Entities cease to beneficially own in the aggregate shares of our capital stock representing at least 30% of the Voting Power or no shares of Class B common stock are outstanding;

- certain supermajority thresholds for our stockholders to amend certain provisions of our amended and restated certificate of incorporation or to amend our bylaws;

- 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 provision that a director may be removed only for cause at any time when the Dell Affiliates, as defined in our Amended and Restated Certificate of Incorporation ("Dell Affiliates"), do not beneficially own in the aggregate shares of capital stock representing a majority of the votes entitled to be cast to elect such director;

- the provision that any vacancy on the board of directors may be filled only by the affirmative vote of, (i) in the case of any Group I director, a majority of votes entitled to be cast by the remaining Group I directors then in office at any time when the Dell Affiliates do not beneficially own in the aggregate shares of capital stock representing a majority of the votes entitled to be cast to elect any Group I director, and (ii) in the case of any Group II director, a majority of votes entitled to be cast by the remaining directors then in office at any time when the Dell Affiliates do not beneficially own in the aggregate shares of capital stock representing a majority of the votes entitled to be cast to elect any Group II director, in each case, which would prevent other stockholders from being able to fill vacancies on our board of directors;

- the provision that a special meeting of stockholders may be called only by the board chairperson, the vote of a majority of the votes entitled to be cast by the directors then in office or, so long as the Dell Affiliates beneficially own in the aggregate shares of our capital stock representing a majority of the Voting Power, Dell;

- the prohibition of cumulative voting in the election of directors or any other matters, which would otherwise allow less than a majority of stockholders to elect director candidates;

- the requirement for advance notice for nominations for election to the board of directors or for proposing matters that can be acted upon at a stockholders’ meeting;

- the provision that at any time when the Dell Affiliates do not beneficially own in the aggregate shares of our capital stock representing a majority of the Voting Power, any action required or permitted to be taken by our stockholders at any annual or special meeting may not be effected by a written consent in lieu of a meeting (other than any exercise of the consent rights of the holders of our Class B common stock); and

- the ability of our board of directors to issue without stockholder approval, other than approval by holders of our Class B common stock exercising their consent rights to provide for the issuance of up to 500,000,000 shares of preferred stock, in one or more series, with terms and conditions, and having rights, privileges and preferences, to be determined by the board of directors.

In addition, we will become subject to Section 203 of the Delaware General Corporation Law at such time (if any) as the Dell Affiliates cease to beneficially own in the aggregate shares of our capital stock representing at least 10% of the Voting Power. This statute prohibits a Delaware corporation listed on a national securities exchange from engaging in a business combination with an interested stockholder (generally a person who, together with its affiliates, owns or within the last three years has owned 15% or more of our voting stock) for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

These provisions in our amended and restated certificate of incorporation and bylaws and under Delaware law could discourage potential takeover attempts and could reduce the price that investors might be willing to pay for shares of our common stock.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by, or other wrongdoing by, any of our directors, officers or other employees, or stockholders to us or our stockholders;
- any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or as to which the Delaware General Corporation Law confers jurisdiction on the Court of Chancery of the State of Delaware; and
- any action asserting a claim governed by the internal affairs doctrine.

Any person purchasing or otherwise acquiring or holding any interest in shares of our capital stock is deemed to have received notice of and consented to the foregoing provisions. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds more favorable for disputes with us or with our directors, our officers or other employees, or our other stockholders, including our majority stockholder, which may discourage such lawsuits against us and such other persons. Alternatively, if a court were to find this choice of forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, results of operations and financial condition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our corporate headquarters is located in San Francisco, California, where we currently lease approximately 66,510 square feet under a lease agreement that expires in 2026. We also lease facilities in other major cities in the United States, including but not limited to, spaces in Chicago, Denver, New York, Palo Alto and Washington, D.C. Our leased facilities in major cities internationally include, but is not limited to, Beijing, London, Singapore, Tokyo and Toronto. The associated agreements expire on various dates through 2030. We believe that our existing facilities are suitable to meet our current needs. We intend to renew or add new facilities as we continue to add employees and enter new geographic markets. We believe that suitable additional or alternative space will be available as needed to accommodate any such growth and that we will be able to obtain additional space at commercially reasonable terms.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we are involved in legal proceedings and subject to claims arising in the ordinary course of our business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the resolution of these ordinary course matters will not have a material adverse effect on our business, operating results, financial condition or cash flows. Even if any particular litigation is not resolved in a manner that is adverse to our interests, such litigation can have a negative impact on us because of defense and settlement costs, diversion of management resources from our business and other factors. There were no such material matters as of February 1, 2019.

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 "PVTL" since April 20, 2018. Prior to that date, there was no public trading market for our common stock.

Holders

As of February 1, 2019, there were 513 holders of record of our Class A common stock and 2 holders of record of our Class B common stock. The actual number of stockholders is greater than the total of record holders because it 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 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the fiscal year ended February 1, 2019, and is incorporated herein by reference.

Use of Proceeds

On April 19, 2018, our Registration Statement on Form S-1 (File No. 333-223872) was declared effective by the SEC for our IPO of Class A common stock, pursuant to which we sold shares of our Class A common stock. There has been no material change in the planned use of proceeds from our IPO as described in our Prospectus filed with the SEC on April 20, 2018 pursuant to Rule 424(b)(4).

Unregistered Sales of Equity Securities

From February 3, 2018 through April 19, 2018 (the day before the filing of our Registration Statement on Form S-8), we granted stock options to our employees to purchase an aggregate of 1,631,900 shares of Class A common stock under the 2013 Equity Incentive Plan ("2013 Plan") at per share exercise price of $10.90.

The issuances of the above securities were exempt from registration under the Securities Act, in reliance upon Section 4(2) of the Securities Act, or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers.

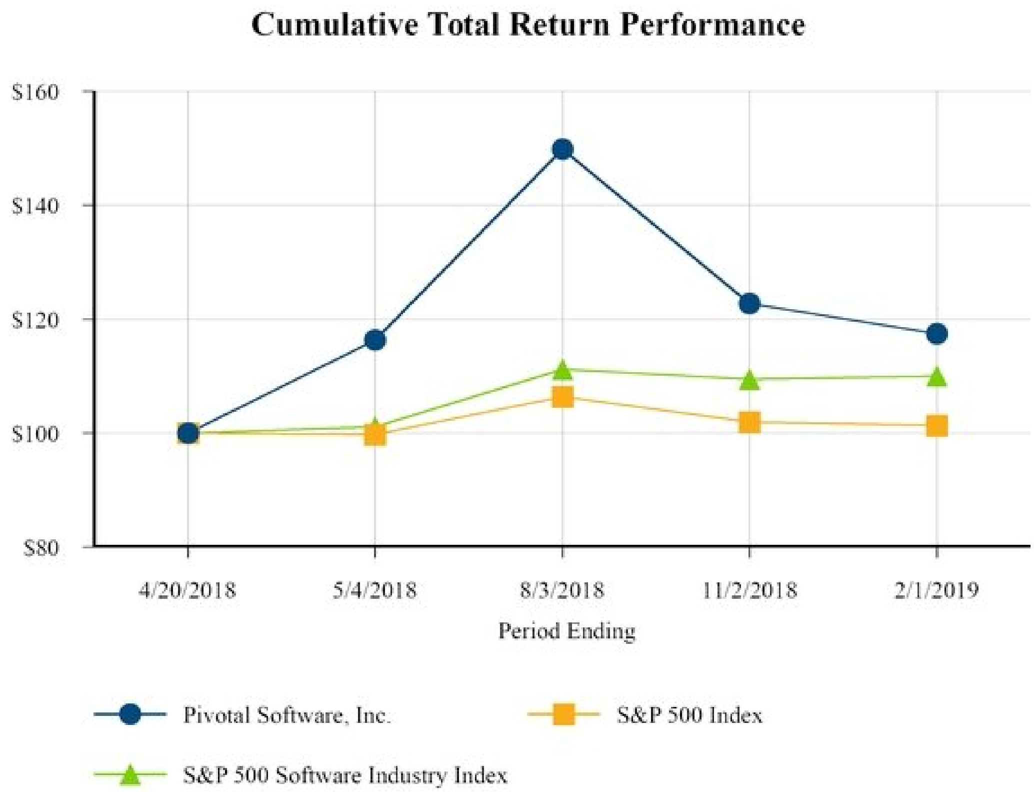
None.

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 Pivotal 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 S&P 500 Software Industry Index. The graph assumes $100 was invested at the market close on April 20, 2018 which was our initial trading day, in our common stock. Data for the S&P 500 Index and S&P 500 Software Industry Index assumes a reinvestment of dividends. Our offering price of our common stock in our initial public offering (IPO), which had a closing stock price of $15.73 on April 20, 2018, 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 4/20/2018	5/4/2018	8/3/2018	11/2/2018	2/1/2019
Pivotal Software, Inc.	$ 100.00	$ 116.34	$ 149.84	$ 122.76	$ 117.42
S&P 500 Index	$ 100.00	$ 99.75	$ 106.37	$ 101.98	$ 101.36
S&P 500 Software Industry Index	$ 100.00	$ 101.07	$ 111.21	$ 109.44	$ 110.06

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following tables contain selected consolidated financial data. Our fiscal year is the 52- or 53-week period ending on the Friday nearest to January 31 of each year. Our fiscal year 2019 ("fiscal 2019") ended on February 1, 2019, our fiscal year 2018 ("fiscal 2018") ended on February 2, 2018, our fiscal year 2017 ("fiscal 2017") ended on February 3, 2017 and our fiscal year 2016 ("fiscal 2016") ended on January 29, 2016.

We derived the selected consolidated statements of operations data for fiscal 2019, fiscal 2018 and fiscal 2017 and the consolidated balance sheet data as of February 1, 2019 and February 2, 2018 from our audited consolidated financial statements included elsewhere in this report. The selected consolidated statement of operations data for fiscal 2016 and the selected consolidated balance sheet data as of February 3, 2017, have been derived from our audited consolidated financial statements that are not included in this report. Our historical results are not necessarily indicative of the results that may be expected in the future. The following selected consolidated financial data should be read in conjunction with our Consolidated Financial Statements and accompanying Notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this annual filing.

	Fiscal Year Ended			
	February 1, 2019	February 2, 2018	February 3, 2017	January 29, 2016
	(in thousands, except per share data)			
Consolidated Statements of Operations Data:				
Revenue:				
Subscription	$ 400,866	$ 259,018	$ 149,995	$ 94,976
Services	256,628	250,418	266,272	185,898
Total revenue	657,494	509,436	416,267	280,874
Cost of revenue:				
Subscription (1),(2)	32,142	30,472	31,253	33,830
Services (1)	208,573	197,922	203,096	153,509
Total cost of revenue	240,715	228,394	234,349	187,339
Gross profit	416,779	281,042	181,918	93,535
Operating expenses:				
Sales and marketing (1),(2)	286,385	221,187	194,322	187,292
Research and development (1)	196,406	160,947	152,122	120,493
General and administrative (1),(2)	80,802	67,204	61,994	58,472
Total operating expenses	563,593	449,338	408,438	366,257
Loss from operations	(146,814)	(168,296)	(226,520)	(272,722)
Other income (expense), net	5,486	2,145	(3,732)	(6,183)
Loss before provision for (benefit from) income taxes	(141,328)	(166,151)	(230,252)	(278,905)
Provision for (benefit from) income taxes	570	(2,637)	2,614	3,767
Net loss	(141,898)	(163,514)	(232,866)	(282,672)
Less: Net loss (income) attributable to non-controlling interest	(5)	(1)	329	126
Net loss attributable to Pivotal	$ (141,903)	$ (163,515)	$ (232,537)	$ (282,546)
Net loss per share attributable to common stockholders, basic and diluted (3)	$ (0.64)	$ (2.38)	$ (3.45)	$ (4.42)
Weighted average shares used in computing net loss per share attributable to common stockholders, basic and diluted (3)	221,149	68,574	67,337	63,955

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

	Fiscal Year Ended			
	February 1, 2019	February 2, 2018	February 3, 2017	January 29, 2016
	(in thousands)			
Cost of revenue – subscription	$ 1,469	$ 520	$ 1,274	$ 818
Cost of revenue – services	14,962	6,548	6,184	7,340
Sales and marketing	21,082	8,619	7,971	7,501
Research and development	19,497	7,833	7,290	8,232
General and administrative	12,023	5,109	6,132	7,117
Total stock-based compensation expense	$ 69,033	$ 28,629	$ 28,851	$ 31,008

(2) Includes intangible asset amortization expense from our formation and subsequent business acquisitions as follows:

	Fiscal Year Ended			
	February 1, 2019	February 2, 2018	February 3, 2017	January 29, 2016
	(in thousands)			
Cost of revenue – subscription	$ 1,439	$ 4,913	$ 8,951	$ 12,448
Sales and marketing	3,557	4,811	5,111	5,853
General and administrative	1,521	1,437	1,554	1,714
Total intangible asset amortization expense	$ 6,517	$ 11,161	$ 15,616	$ 20,015

(3) See Note 13 to our consolidated financial statements included elsewhere in this filing for an explanation of the method used to calculate our basic and diluted net loss per share attributable to common stockholders and the weighted average number of shares used in the computation of the per share amounts.

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
	(in thousands)		
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 701,733	$ 73,012	$ 133,873
Working capital	581,511	6,620	49,153
Total assets	1,850,468	1,153,397	1,116,245
Deferred revenue, current and noncurrent	466,588	317,467	242,632
Redeemable convertible preferred stock	—	1,248,327	1,248,327
Total stockholders’ equity (deficit)	$ 1,265,478	$ (540,528)	$ (490,644)

	Fiscal Year Ended			
	February 1, 2019	February 2, 2018	February 3, 2017	January 29, 2016
	(in thousands)			
Consolidated Statements of Cash Flows Data:				
Net cash provided by (used in) operating activities	$ (5,355)	$ (116,491)	$ (166,351)	$ 29,190
Net cash used in investing activities	$ (6,177)	$ (12,877)	$ (28,916)	$ (33,556)
Net cash provided by financing activities	$ 639,514	$ 71,446	$ 258,276	$ 9,436

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 section titled "Selected Consolidated Financial Data" and our Consolidated Financial Statements and accompanying notes included elsewhere in this annual filing. This discussion contains forward-looking statements that involve risks and uncertainties; our future 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. Our fiscal year is the 52- or 53-week period ending on the Friday nearest to January 31.

Overview

We provide a leading cloud-native platform that makes software development and IT operations a strategic advantage for our customers.

Our cloud-native platform, Pivotal Cloud Foundry ("PCF"), accelerates and streamlines software development by reducing the complexity of building, deploying and operating new cloud-native applications and modernizing legacy applications. This enables our customers' development and IT operations teams to spend more time writing code, waste less time on mundane tasks and focus on activities that drive business value — building and deploying great software.

PCF customers can accelerate their adoption of a modern software development process and their business success using our platform through our complementary strategic services, Pivotal Labs ("Labs"). Enterprises across industries have adopted our platform to build, deploy and operate software, including enterprises in the automotive and transportation, industrial and business services, financial services, healthcare and insurance, technology and media, consumer and communications and government sectors.

Our offering, which includes PCF and Labs, enables organizations to build cloud-native software and compete in today's business environment.

- PCF accelerates and streamlines software development by reducing the complexity of building, deploying and operating modern applications. PCF integrates an expansive set of critical, modern software technologies delivered continuously to provide a turnkey cloud-native platform. PCF combines leading open-source software with our robust proprietary software to meet the exacting enterprise-grade requirements of large organizations, including the ability to operate and manage software across private and public cloud environments, such as Amazon Web Services, Microsoft Azure, Google Cloud Platform, VMware vSphere and OpenStack. PCF is sold on a subscription basis.
- Labs software development experts deliver strategic services that transfer the expertise for enterprises to accelerate their cloud-native transformation by implementing modern agile development practices. With Labs, we help customers co-develop new applications and transform existing ones while accelerating software development, streamlining IT operations and ultimately driving self-sustaining business transformation.

We generate a substantial and increasing portion of our revenue from the sale of PCF subscriptions generated from sales of products to handle customers' differing workloads and needs, including Pivotal Application Service ("PAS"), Pivotal Container Service ("PKS") and products accessed in our Marketplace. We generate subscription revenue primarily from the sale of time-based subscriptions. Subscriptions are offered typically for one- to three-year terms, and we recognize revenue from our subscriptions ratably over the subscription term. We expect that over time subscription revenue will become a larger percentage of our total revenue as customers continue to adopt and expand their PCF subscriptions and as our systems integrator ("SI") partner relationships ramp to directly deliver Labs-like services to our customers.

We offer strategic services including Labs, implementation and other services. Labs involves co-development and application transformation services. We offer implementation services to enable our customers to configure, deploy, test, launch and operate PCF. Part of our strategy to scale our subscription revenue is to rely, in part, on SI partners to deliver co-development, application transformation and implementation services to our customers. We intend to grow our services revenue at a slower rate than our subscription revenue as customers are enabled on our platform and increasingly use our partner ecosystem for their services needs. Our strategic services are typically priced on a time and materials basis with revenue recognized upon the delivery of the services.

We remain focused on attracting new subscription customers, retaining our customers and expanding their usage of our platform, and leveraging strategic services, delivered by us and our partners, to accelerate our customers' pace of innovation and use of PCF. This focus has resulted in rapid growth of our subscription revenue and significant total revenue growth in recent periods.

To realize this rapid growth, we have made and expect to continue to make substantial investments across our business. Specifically, we have increased our total employee base over time, and we intend to continue to invest in our business to take advantage of our market opportunity and to expand our sales capacity and further improve sales productivity to drive additional revenue and grow our global customer base. Additionally, we continue to invest in the development and expansion of our partner ecosystem to supplement our sales and services resources and increase our reach in our target markets. We also expect to continue to make significant investments in research and development to expand our product and engineering teams to further develop our platform. We expect to incur increased general and administrative expenses to support our growth and operations.

Key Metrics

We regularly review the following key metrics to measure performance, identify trends, formulate financial projections and monitor our business. While we believe that these metrics are useful in evaluating our business, other companies may not use similar metrics or may not calculate similarly-titled metrics in a consistent manner.

	February 1, 2019	February 2, 2018	February 3, 2017
Subscription customers	377	319	275
Dollar-based net expansion	149%	158%	163%

Subscription Customers

We believe that the number of our subscription customers is an important indicator of the growth of our business, our increased customer footprint and the market acceptance of our platform. We define the number of subscription customers as the organizations that have a subscription contract for our software resulting in at least $50,000 of annual revenue in that period. While we may enter into subscription agreements with multiple parties inside a larger organization, we count a customer as an addition to our subscription customers only if it represents a unique global ultimate parent. In the case of the U.S. government, we count U.S. government departments and major agencies as unique subscription customers. We view our total number of subscription customers as reflective of the number of sources of revenue to us and our growth and potential for future growth.

We had 377 , 319 and 275 subscription customers as of February 1, 2019, February 2, 2018 and February 3, 2017, respectively. We expect growth in subscription customers to continue as we deliver enhancements to our products and remain focused on increasing our subscription customer count. Our total number of subscription customers and the net additions in any period may continue to fluctuate as a result of several factors, including the focus of our sales force, customer satisfaction with the functionality, features, performance or pricing of our offering, consolidation of our customer base and other factors, a number of which are beyond our control.

Dollar-Based Net Expansion Rate

We believe that the dollar-based net expansion rate is an important measure of our business because it is an indicator of our subscription customers' expanded use of and demand for our platform and our ability to grow revenue and profitability. Our dollar-based net expansion rate compares our subscription revenue from a common group of customers across comparable periods. We calculate our dollar-based net expansion rate for all periods on a trailing four-quarter basis. To do so, we calculate our dollar-based net expansion rate as of each quarter end by starting with the subscription revenue from customers as of the prior year's same quarter (the "Prior Period Subscription Revenue"). We then calculate subscription revenue from these same customers as of the current quarter end (the "Current Period Subscription Revenue"). Finally, to assess net expansion level for common groups of customers over time, we divide the aggregate Current Period Subscription Revenue for the trailing four quarters by the aggregate Prior Period Subscription Revenue for the trailing four quarters, resulting in our dollar-based expansion rate.

We expect our dollar-based net expansion rate to remain a significant indicator of our business momentum and results of operations as existing customers realize the benefits of our software and expand their PCF subscriptions. Our dollar-based net expansion rate has fluctuated and we expect it to continue to fluctuate and trend downward over time as we scale our business and as a result of several factors, including the size of the transactions, the timing and terms of the deals and our customers' satisfaction with our offering. Our dollar-based net expansion rate was approximately 149% for the year ended February 1, 2019, 158% for the year ended February 2, 2018 and 163% for the year ended February 3, 2017.

Components of Results of Operations

Revenue

Subscription

Subscription revenue is primarily derived from sales of PCF subscriptions. Our customers subscribe to use our software platform for a variety of workloads, such as applications, containers or other microservices. Subscriptions are offered typically for one- to three-year terms, and we recognize revenue from our subscriptions ratably over the subscriptions' term. We generally bill our customers annually in advance, although for our multi-year contracts, some customers pay the full contract amount in advance.

To a lesser extent, we generate revenue from certain historical software products sold on a perpetual license basis. Perpetual license revenue represented less than 2% of our total revenue in fiscal 2019, fiscal 2018 and fiscal 2017. We expect the percentage of perpetual license revenue to continue to decline as a percentage of total revenue. We generally recognize revenue from our perpetual licenses upon delivery, assuming all the other revenue recognition criteria are satisfied.

Services

Services revenue is primarily derived from Labs, as well as implementation and other professional services. To a decreasing extent, services revenue also includes revenue from maintenance and support associated with the perpetual licenses described above. Our services revenue may continue to fluctuate; any services revenue growth is expected to be modest both in absolute dollars and relative to subscription revenue.

Cost of Revenue

Subscription

Cost of subscription revenue consists primarily of personnel and related costs, consisting of salaries, benefits, bonuses and stock-based compensation ("personnel costs") directly associated with our customer support and allocated overhead costs. Additionally, cost of subscription revenue includes intangible asset and other asset amortization expense and certain third-party expenses such as cloud infrastructure costs and software and support fees. We expect our cost of subscription revenue to increase in absolute dollar amounts as we invest in our business.

Services

Cost of services revenue consists primarily of personnel costs directly associated with delivery of Labs, implementation and other professional services, costs of third-party contractors and allocated overhead costs. We expect our cost of services revenue to increase in absolute dollar amounts as we invest in our business. As a percentage of revenue, we expect it may vary quarter to quarter due to the seasonality of projects and timing of engagements.

Operating Expenses

Sales and Marketing

Sales and marketing expenses consist primarily of personnel costs as well as commissions. Other sales and marketing costs include travel and entertainment, promotional events (such as our SpringOne Platform Conference) and allocated overhead costs. We expect our sales and marketing expenses will increase in absolute dollar amounts as we hire additional sales and marketing personnel, increase our marketing activities and build brand awareness.

Research and Development

Research and development expenses consist primarily of personnel costs, cloud infrastructure costs related to our research and development efforts and allocated overhead costs. We expect our research and development expenses will increase in absolute dollar amounts as we expand our research and development team to develop new products and product enhancements.

General and Administrative

General and administrative expenses consist primarily of personnel costs and allocated overhead costs for our administrative, legal, information technology, human resources, finance and accounting employees and executives. Our general and administrative expenses also include professional fees, audit fees, tax services and legal fees, as well as insurance and other corporate expenses. We expect our general and administrative expenses will increase in absolute dollar amounts as we also expect to increase the size of our general and administrative function to support the growth of our business. We also anticipate that we will incur additional costs for employees and third-party consulting services as we continue to operate as a public company.

Other Income (Expense), Net

Other income (expense), net primarily consists of gains and losses from transactions denominated in a currency other than the functional currency and interest income earned on money market funds.

Provision for (Benefit from) Income Taxes

Provision for (benefit from) income taxes consists primarily of income taxes related to foreign and state jurisdictions in which we conduct business. We maintain a full valuation allowance on our federal, state, and certain foreign deferred tax assets as we have concluded that it is not more likely than not that the deferred assets will be utilized.

Results of Operations

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
		(in thousands)	
Consolidated Statements of Operations Data:			
Revenue:			
Subscription	$ 400,866	$ 259,018	$ 149,995
Services	256,628	250,418	266,272
Total revenue	657,494	509,436	416,267
Cost of revenue:			
Subscription	32,142	30,472	31,253
Services	208,573	197,922	203,096
Total cost of revenue	240,715	228,394	234,349
Gross profit	416,779	281,042	181,918
Operating expenses:			
Sales and marketing	286,385	221,187	194,322
Research and development	196,406	160,947	152,122
General and administrative	80,802	67,204	61,994
Total operating expenses	563,593	449,338	408,438
Loss from operations	(146,814)	(168,296)	(226,520)
Other income (expense), net	5,486	2,145	(3,732)
Loss before provision for (benefit from) income taxes	(141,328)	(166,151)	(230,252)
Provision for (benefit from) income taxes	570	(2,637)	2,614
Net loss	(141,898)	(163,514)	(232,866)
Less: Net loss (income) attributable to non-controlling interest	(5)	(1)	329
Net loss attributable to Pivotal	$ (141,903)	$ (163,515)	$ (232,537)

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
Percentage of Revenue Data:			
Revenue:			
Subscription	61 %	51 %	36 %
Services	39	49	64
Total revenue	100	100	100
Cost of revenue:			
Subscription	5	6	7
Services	32	39	49
Total cost of revenue	37	45	56
Gross profit	63	55	44
Operating expenses:			
Sales and marketing	44	43	47
Research and development	30	32	37
General and administrative	11	13	14
Total operating expenses	85	88	98
Loss from operations	(22)	(33)	(54)
Other income (expense), net	1	—	(1)
Loss before provision for (benefit from) income taxes	(21)	(33)	(55)
Provision for (benefit from) income taxes	—	(1)	1
Net loss	(21)	(32)	(56)
Less: Net income (loss) attributable to non-controlling interest	—	—	—
Net loss attributable to Pivotal	(21)%	(32)%	(56)%

Comparison of Fiscal 2019, Fiscal 2018 and Fiscal 2017

Revenue

	Fiscal Year Ended				
	February 1, 2019	February 2, 2018	February 3, 2017	Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount	Amount	Amount	% Change	% Change
	(dollars in thousands)				
Revenue:					
Subscription	$ 400,866	$ 259,018	$ 149,995	55%	73 %
Services	256,628	250,418	266,272	2%	(6)%
Total revenues	$ 657,494	$ 509,436	$ 416,267	29%	22 %

Total revenue increased by $148.1 million , or 29% , to $657.5 million in fiscal 2019 from $509.4 million in fiscal 2018. Subscription revenue increased by $141.8 million , or 55% , to $400.9 million in fiscal 2019 from $259.0 million in fiscal 2018. The increase in subscription revenue was primarily due to increased sales to existing subscription customers and the addition of 58 new subscription customers in fiscal 2019. Services revenue increased by $6.2 million , or 2% , to $256.6 million in fiscal 2019 from $250.4 million in fiscal 2018. The increase in services revenue was driven by growth in subscription customers requiring services.

Total revenue increased by $93.2 million , or 22% , to $509.4 million in fiscal 2018 from $416.3 million in fiscal 2017. Subscription revenue increased by $109.0 million , or 73% , to $259.0 million in fiscal 2018 from $150.0 million in fiscal 2017. The increase in subscription revenue was primarily due to increased sales to existing subscription customers and the remaining increase was due to sales to 44 new subscription customers. Services revenue decreased by $15.9 million , or 6% , to $250.4 million in fiscal 2018 from $266.3 million in fiscal 2017. The decrease in services revenue primarily reflects the decline of maintenance and support contracts associated with certain historical software products sold on a perpetual license basis. Excluding the impact from this maintenance and support services, in total services were relatively flat in fiscal 2018 compared to fiscal 2017.

Revenue from maintenance and support contracts associated with historical software products sold on a perpetual license basis represented less than 4%, 5% and 10% of total revenue in fiscal 2019, 2018 and fiscal 2017, respectively, and is expected to represent a decreasing amount of revenue in future years.

Cost of Revenue

	Fiscal Year Ended							
	February 1, 2019		February 2, 2018		February 3, 2017		Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount		Amount		Amount		% Change	% Change
	(dollars in thousands)							
Cost of revenue:								
Subscription	$	32,142	$	30,472	$	31,253	5%	(2)%
Services		208,573		197,922		203,096	5%	(3)%
Total cost of revenue	$	240,715	$	228,394	$	234,349	5%	(3)%
Gross margin:								
Subscription		92%		88%		79%		
Services		19%		21%		24%		
Total gross margin		63%		55%		44%		

Total cost of revenue increased by $12.3 million , or 5% , to $240.7 million in fiscal 2019 from $228.4 million in fiscal 2018. Cost of subscription revenue increased by $1.7 million , or 5% , to $32.1 million in fiscal 2019 from $30.5 million in fiscal 2018, due to higher personnel related costs, offset by a decrease in intangible asset amortization. Cost of services revenue increased by $10.7 million , or 5% , to $208.6 million in fiscal 2019 from $197.9 million in fiscal 2018. The increase in cost of services revenue was higher due to growth in personnel costs of $11.5 million, offset by lower third party spend.

Subscription gross margin increased to 92% in fiscal 2019 from 88% in fiscal 2018 due to economies of scale as our subscription revenues increased. Services gross margin decreased to 19% in fiscal 2019 from 21% in fiscal 2018 driven by growth in services personnel costs.

Total cost of revenue decreased by $6.0 million , or 3%, to $228.4 million in fiscal 2018 from $234.3 million in fiscal 2017. Cost of subscription revenue remained relatively flat, decreasing by $0.8 million , or 2%, to $30.5 million in fiscal 2018 from $31.3 million in fiscal 2017. Cost of services revenue decreased by $5.2 million , or 3%, to $197.9 million in fiscal 2018 from $203.1 million in fiscal 2017. The decrease in cost of services revenue was primarily due to a decrease of $4.8 million in personnel costs consistent with the decrease in services revenue.

Subscription gross margin increased to 88% in fiscal 2018 from 79% in fiscal 2017 due to economies of scale as our subscription revenues increased. Services gross margin decreased to 21% in fiscal 2018 from 24% in fiscal 2017 driven by growth in services personnel costs.

Operating Expenses

Sales and Marketing

	Fiscal Year Ended							
	February 1, 2019		February 2, 2018		February 3, 2017		Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount		Amount		Amount		% Change	% Change
	(dollars in thousands)							
Sales and marketing	$	286,385	$	221,187	$	194,322	29%	14%

Sales and marketing expense increased by $65.2 million , or 29% , to $286.4 million in fiscal 2019 from $221.2 million in fiscal 2018. The increase in sales and marketing expense was primarily due to an increase of $65.3 million in personnel costs and commissions.

Sales and marketing expense increased by $26.9 million , or 14% , to $221.2 million in fiscal 2018 from $194.3 million in fiscal 2017. The increase in sales and marketing expense was primarily due to an increase of $28.3 million in personnel costs and commissions, partially offset by lower amounts in other areas.

Research and Development

	Fiscal Year Ended							
	February 1, 2019		February 2, 2018		February 3, 2017	Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount		Amount		Amount	% Change	% Change
	(dollars in thousands)						
Research and development	$	196,406	$	160,947	152,122	22%	6%

Research and development expense increased by $35.5 million , or 22% , to $196.4 million in fiscal 2019 from $160.9 million in fiscal 2018. The increase in research and development expense was primarily due to an increase of $36.7 million in personnel costs as we continued to increase our research and development efforts, offset by $1.8 million of lower cloud infrastructure and related spend.

Research and development expense increased by $8.8 million , or 6% , to $160.9 million in fiscal 2018 from $152.1 million in fiscal 2017. The increase in research and development expense was primarily due to an increase of $5.7 million in cloud infrastructure costs and $2.5 million in personnel costs as we continued to increase our research and development efforts.

General and Administrative

	Fiscal Year Ended							
	February 1, 2019		February 2, 2018		February 3, 2017		Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount		Amount		Amount		% Change	% Change
	(dollars in thousands)							
General and administrative	$	80,802	$	67,204	$	61,994	20%	8%

General and administrative expense increased by $13.6 million , or 20% , to $80.8 million in fiscal 2019 from $67.2 million in fiscal 2018. The increase in general and administrative expense was primarily due to an increase of $12.2 million in support personnel costs and a $1.5 million non-cash write-off of certain intangible assets.

General and administrative expense increased by $5.2 million , or 8% , to $67.2 million in fiscal 2018 from $62.0 million in fiscal 2017. The increase in general and administrative expense was primarily due to an increase of $5.4 million in personnel costs, partially offset by lower amounts in other areas.

Other Income (Expense), Net

	Fiscal Year Ended							
	February 1, 2019		February 2, 2018		February 3, 2017		Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount		Amount		Amount		% Change	% Change
	(dollars in thousands)							
Other income (expense), net	$	5,486	$	2,145	$	(3,732)	156%	157%

Other income (expense), net increased by $3.3 million , or 156% , to other income of $5.5 million in fiscal 2019 from other income of $2.1 million in fiscal 2018. Other income (expense), net generated in fiscal 2019 was primarily due to a gain on sale of an investment of approximately $3.2 million and interest earned on money market investments of $8.4 million, offset by foreign currency losses in our international operations.The other income generated in fiscal 2018 was primarily due to foreign currency gains in our foreign operations related to the appreciation of the British Pound.

Other income (expense), net changed by $5.9 million , or 157% , to other income of $2.1 million in fiscal 2018 from other expense of $3.7 million in fiscal 2017. The other income generated in fiscal 2018 was primarily due to foreign currency gains in our foreign operations related to the appreciation of the British Pound.

Provision for (Benefit from) Income Taxes

	Fiscal Year Ended				
	February 1, 2019	February 2, 2018	February 3, 2017	Fiscal 2018 to 2019	Fiscal 2017 to 2018
	Amount	Amount	Amount	% Change	% Change
		(dollars in thousands)			
Provision for (benefit from) income taxes	$ 570	$ (2,637)	$ 2,614	(122)%	(201)%

In fiscal 2019, we recorded a tax expense of $0.6 million primarily due to foreign taxes in our profitable jurisdictions. The fiscal 2018 income tax benefit of $2.6 million was primarily due to the release of a valuation allowance of $7.4 million under the provisions of the Tax Cuts and Jobs Act (the “TCJA” or “Tax Reform”) partially offset by foreign taxes recorded in our profitable jurisdictions. The tax provision recorded in fiscal 2017 of $2.6 million was primarily due to the net tax expense of the federal valuation allowance and foreign taxes due in profitable jurisdictions. See Note 2 and Note 9 to our consolidated financial statements included elsewhere in this filing for more information.

Quarterly Results of Operations Data

The following tables set forth selected unaudited consolidated quarterly statements of operations data for each of the eight fiscal quarters ended February 1, 2019, as well as the percentage of revenue that each line item represents for each quarter. The information for each of these quarters has been prepared on the same basis as the audited annual consolidated financial statements included elsewhere in this Annual Report on Form 10-K and, in the opinion of management, includes all adjustments, which consist only of normal recurring adjustments, necessary for the fair presentation of the results of operations for these periods. This data should be read in conjunction with our audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. These quarterly results are not necessarily indicative of our results of operations to be expected for any future period.

	Three Months Ended							
	February 1, 2019	November 2, 2018	August 3, 2018	May 4, 2018	February 2, 2018	November 3, 2017	August 4, 2017	May 5, 2017
	(in thousands)							
Consolidated Statements of Operations Data:								
Revenue:								
Subscription	$ 112,476	$ 100,775	$ 97,494	$ 90,121	$ 74,979	$ 66,050	$ 64,566	$ 53,423
Services	56,732	67,368	66,914	65,614	58,265	62,922	61,444	67,787
Total revenue	169,208	168,143	164,408	155,735	133,244	128,972	126,010	121,210
Cost of revenue:								
Subscription	8,095	7,813	8,105	8,129	7,729	7,627	7,618	7,498
Services	51,103	53,179	53,129	51,162	49,786	47,875	48,726	51,535
Total cost of revenue	59,198	60,992	61,234	59,291	57,515	55,502	56,344	59,033
Gross profit	110,010	107,151	103,174	96,444	75,729	73,470	69,666	62,177
Operating expenses:								
Sales and marketing	76,077	70,620	70,550	69,138	61,860	54,295	52,875	52,157
Research and development	53,097	51,880	47,001	44,428	41,036	40,232	39,661	40,018
General and administrative	22,823	20,546	21,025	16,408	18,022	15,405	15,364	18,413
Total operating expenses	151,997	143,046	138,576	129,974	120,918	109,932	107,900	110,588
Loss from operations	(41,987)	(35,895)	(35,402)	(33,530)	(45,189)	(36,462)	(38,234)	(48,411)
Other income (expense), net	3,074	1,866	237	309	1,615	(2,101)	1,910	721
Loss before provision for (benefit from) income taxes	(38,913)	(34,029)	(35,165)	(33,221)	(43,574)	(38,563)	(36,324)	(47,690)
Provision for (benefit from) income taxes	21	776	437	(664)	(6,255)	786	(822)	3,654
Net loss	(38,934)	(34,805)	(35,602)	(32,557)	(37,319)	(39,349)	(35,502)	(51,344)
Less: Net loss (income) attributable to non-controlling interest	3	(45)	(5)	42	83	—	118	(202)
Net loss attributable to Pivotal	$ (38,931)	$ (34,850)	$ (35,607)	$ (32,515)	$ (37,236)	$ (39,349)	$ (35,384)	$ (51,546)

	Three Months Ended							
	February 1, 2019	November 2, 2018	August 3, 2018	May 4, 2018	February 2, 2018	November 3, 2017	August 4, 2017	May 5, 2017
Percentage of Revenue Data:								
Revenue:								
Subscription	66 %	60 %	59 %	58 %	56 %	51 %	51 %	44 %
Services	34	40	41	42	44	49	49	56
Total revenue	100	100	100	100	100	100	100	100
Cost of revenue:								
Subscription	5	5	5	5	6	6	6	6
Services	30	31	32	33	37	37	39	43
Total cost of revenue	35	36	37	38	43	43	45	49
Gross profit	65	64	63	62	57	57	55	51
Operating expenses:								
Sales and marketing	45	42	43	44	46	42	42	43
Research and development	31	31	29	29	31	31	31	33
General and administrative	14	12	13	11	14	12	12	15
Total operating expenses	90	85	85	84	91	85	85	91
Loss from operations	(25)	(21)	(22)	(22)	(34)	(28)	(30)	(40)
Other income (expense), net	2	1	1	1	1	(2)	1	1
Loss before provision for (benefit from) income taxes	(23)	(20)	(21)	(21)	(33)	(30)	(29)	(39)
Provision for (benefit from) income taxes	—	1	1	—	(5)	1	(1)	3
Net loss	(23)	(21)	(22)	(21)	(28)	(31)	(28)	(42)
Less: Net income (loss) attributable to non-controlling interest	—	—	—	—	—	—	—	(1)
Net loss attributable to Pivotal	(23)%	(21)%	(22)%	(21)%	(28)%	(31)%	(28)%	(43)%

Quarterly Revenue Trends

Our quarterly subscription revenue increased sequentially in each of the periods presented due primarily to the expansion of our existing customer subscription footprint and in part due to an increase in the number of new customers. Our services revenue has fluctuated period to period due in part to seasonality in the delivery of services and the timing of services engagements.

Quarterly Cost of Revenue and Gross Margin Trends

Our quarterly gross margin has generally increased due to increasing subscription revenue and related economies of scale.

Quarterly Operating Expense Trends

Total costs and expenses generally increased sequentially for the fiscal quarters presented, primarily due to the addition of personnel in connection with the expansion of our business. Sales and expenses can fluctuate from quarter to quarter due to hiring activity and marketing events. Sales and marketing expenses generally grew over the periods as we hired additional personnel and amortized more commission expense associated with our multi-year subscription agreements. During fiscal 2018, the majority of our user conference and sales kick-off costs were reflected in sales and marketing expenses in the third and fourth quarters, respectively. During fiscal 2019, the majority of our user conference costs was reflected in sales and marketing expenses in the second quarter. Research and development generally grew over the periods presented, primarily due to incremental hiring activity. General and administrative costs fluctuated period to period as a result of investments to support the growth of our business.

Quarterly Income Tax Trends

The quarterly tax provisions for fiscal 2018 and fiscal 2019 were primarily driven by foreign taxes due in profitable jurisdictions. The quarterly expense fluctuated primarily due to variability in our services profitability in total and among tax jurisdictions with differing tax rates. The benefit recorded in the fourth quarter of 2018 was primarily due to a $7.4 million release of valuation allowance due to Tax Reform.

Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP information is useful in evaluating our operating results. We use the following non-GAAP financial information, collectively, to evaluate our ongoing operations and for internal planning and forecasting purposes. We believe that non-GAAP financial information may be helpful to investors because it provides consistency and comparability with past financial performance, and assists in comparisons with other companies, some of which use similar non-GAAP financial information to supplement their GAAP results. The non-GAAP financial information is presented for supplemental informational purposes only, and should not be considered a substitute for financial information presented in accordance with GAAP, and may be different from similarly-titled non-GAAP measures used by other companies. A reconciliation is provided below for each non-GAAP financial measure to the most directly comparable financial measure stated in accordance with GAAP. Investors are encouraged to review the GAAP financial measures together with such reconciliations.

Non-GAAP Gross Profit and Non-GAAP Gross Margin

We define non-GAAP gross profit and non-GAAP gross margin as GAAP gross profit and GAAP gross margin, adjusted for stock-based compensation expense and amortization of acquired intangibles.

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
	(In thousands)		
Gross profit	$ 416,779	$ 281,042	$ 181,918
Add:			
Stock-based compensation expense included in cost of revenue	16,431	7,068	7,458
Intangible asset amortization expense included in cost of revenue	1,439	4,913	8,951
Non-GAAP gross profit	$ 434,649	$ 293,023	$ 198,327
Gross margin	63%	55%	44%
Non-GAAP gross margin	66%	58%	48%

Non-GAAP Operating Loss

We define non-GAAP operating loss and non-GAAP operating margin as GAAP operating profit and GAAP operating margin, adjusted for stock-based compensation expense and amortization of acquired intangibles.

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
	(In thousands)		
Operating loss	$ (146,814)	$ (168,296)	$ (226,520)
Add:			
Stock-based compensation expense	69,033	28,629	28,851
Intangible asset amortization expense	6,517	11,161	15,616
Non-GAAP operating loss	$ (71,264)	$ (128,506)	$ (182,053)

Liquidity and Capital Resources

Overview

To date, our principal sources of liquidity have been the net proceeds we received through the sale of our common stock in our IPO, private sales of equity securities, payments received from customers using our platform and services and borrowings under our line of credit. Following the completion of our IPO, we received aggregate proceeds of $544.4 million , net of underwriters' discounts and commissions and offering costs paid. As of February 1, 2019, we had cash and cash equivalents totaling $701.7 million , which we intend to use for working capital, operating expenses, and capital expenditures. We may also use a portion of this to acquire complementary businesses, products, services, or technologies. Our cash equivalents are comprised primarily of money market funds. We believe that our existing cash, cash equivalents, and investments will be sufficient to satisfy our anticipated cash needs for working capital and capital expenditures for at least the next 12 months. Our future capital requirements will depend on many factors, including our rate of revenue growth, billing terms of our subscription contracts, timing of collection of accounts receivable, the rate of expansion of our workforce, the timing and extent of our expansion into new markets, the timing of introductions of new functionality and enhancements to our platform and the continuing market acceptance of our platform, as well as general economic and market conditions. We may need to raise additional capital or incur indebtedness to continue to fund our operations in the future or to fund our needs for other strategic initiatives, such as acquisitions. We also foresee entering into lease and other related facilities obligations to support any future growth in our headcount.

In September 2017, we entered into a credit agreement and a related security agreement with Silicon Valley Bank, as administrative agent, and other banks named therein that provide for a senior secured revolving credit facility in an aggregate principal amount not to exceed $100.0 million (the "Revolving Facility"). We may also request from time to time, subject to certain conditions, increases in the commitments under the Revolving Facility in an aggregate amount of up to $50.0 million on the same maturity, pricing and other terms applicable to the then-existing commitments under the Revolving Facility. There can be no assurance that such increases will be available. Borrowings under the Revolving Facility are secured by our tangible assets. Our borrowing capacity under the Revolving Facility is based on our subscription revenue. The Revolving Facility contains customary representations, warranties and covenants, including financial covenants relating to our operating performance and liquidity. The Revolving Facility has a maturity date of September 8, 2020. We had no amounts outstanding under the Revolving Facility as of February 1, 2019.

Cash Flows

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
		(in thousands)	
Net cash provided by (used in):			
Operating activities	$ (5,355)	$ (116,491)	$ (166,351)
Investing activities	$ (6,177)	$ (12,877)	$ (28,916)
Financing activities	$ 639,514	$ 71,446	$ 258,276

Operating Activities

Net cash used in operating activities was $5.4 million , $116.5 million and $166.4 million during fiscal 2019, fiscal 2018 and fiscal 2017, respectively.

Cash used in operating activities in fiscal 2019 was primarily due to our net loss of $141.9 million , adjusted for non cash items of $87.4 million . We also had a favorable increase in cash provided by working capital of $49.2 million , which was primarily driven by accounts receivable collections.

Cash used in operating activities in fiscal 2018 was primarily due to our net loss of $163.5 million , adjusted for non cash items of $45.7 million . We also had a favorable increase in cash provided by working capital of $1.3 million , which was primarily driven by reductions in the net payable due to Dell as described in Note 14 of our consolidated financial statements.

Cash used in operating activities in fiscal 2017 was due to our net loss of $232.9 million adjusted for non cash items of $56.9 million . We had a favorable increase in cash provided by working capital of $9.6 million , which was primarily driven by reductions in the net payable due to Dell as described in Note 14 of our consolidated financial statements. In fiscal 2017, $400.0 million of the net payable due to Dell was settled through the issuance of preferred stock in connection with our Series C-1 financing, with the remainder of the net payable due to Dell balance settled on a cash basis.

Investing Activities

Net cash used in investing activities was $6.2 million , $12.9 million and $28.9 million for fiscal 2019, fiscal 2018 and fiscal 2017, respectively.

Cash used in investing activities primarily consisted of capital expenditures for property, plant and equipment of $9.4 million , $12.9 million and $19.5 million for fiscal 2019, fiscal 2018 and fiscal 2017, respectively, to support facility infrastructure. Our capital expenditures related to the investments in new and upgraded back office systems, including enterprise resource planning and human capital management systems, to facilitate our growth. In fiscal 2019 we recorded a gain on sale of investment, that generated $3.2 million of cash.

Financing Activities

Net cash provided by financing activities was $639.5 million , $71.4 million and $258.3 million for fiscal 2019, fiscal 2018 and fiscal 2017, respectively.

Cash provided by financing activities in fiscal 2019 primarily consisted of proceeds from our initial public offering of $544.4 million , net of issuance costs paid. $44.3 million relates to payments received from Dell under our tax sharing agreement. We also received proceeds from issuance of common stock as part of our employee stock programs totaling $70.8 million. We drew down an additional $15.0 million from our revolving line of credit during the beginning of the fiscal year and we subsequently repaid the full outstanding balance of $35.0 million , within the first half of the fiscal year.

Cash provided by financing activities in fiscal 2018 primarily consisted of $36.1 million paid to us by Dell under the tax sharing agreement, in addition to $18.8 million of borrowings from the Revolving Facility, net of debt issuance costs.

Cash provided by financing activities in fiscal 2017 were primarily due to the $252.5 million in net cash proceeds from the issuance of our Series C and C-1 convertible preferred stock.

Commitments and Contractual Obligations

The following table summarizes our commitments to settle contractual obligations as of February 1, 2019.

	Payments Due by Period				
	Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years	Total
	(in thousands)				
Operating lease obligations [1]	$ 23,176	$ 52,021	$ 46,141	$ 61,522	$ 182,860
Purchase obligations [2]	55,378	5,859	1,697	—	62,934
Revolving Facility [3]	—	—	—	—	—
Total contractual obligations	$ 78,554	$ 57,880	$ 47,838	$ 61,522	$ 245,794

(1) Represents minimum operating lease payments under operating leases for office facilities, excluding potential lease renewals. The amounts in the table are net of expected sublease income.

(2) Represents future minimum payments under non-cancelable purchase commitments. For those agreements with variable terms, we do not estimate what the total obligation may be beyond any minimum quantities and/or pricing.

(3) Represents future minimum re-payments on any draw-downs of our revolving credit facility. We have no outstanding commitments at the end of February 1, 2019.

The commitment amounts in the table above are associated with contracts that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. The table does not include obligations under agreements that we can cancel without a significant penalty.

For more information about operating leases and purchase obligations, see Note 15 to our consolidated financial statements included elsewhere in this annual filing.

Off-Balance Sheet Arrangements

As of February 1, 2019, we were not subject to any obligations pursuant to any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K, or any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities, that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes, that have or are reasonably likely to have a material effect on our financial condition, results of operations or liquidity.

Seasonality

We have seasonal and end-of-quarter and end of fiscal year 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. Within each quarter, most sales occur in the last month of that quarter. In addition, the invoicing of sales may or may not occur before the end of the current fiscal quarter as a result of our 4-4-5 Fiscal Year. This arises if the last day of a fiscal quarter is not the same date as the last day of the same fiscal quarter from the prior year. This can shift our deferred revenue and billings from one period to another. Lastly, we also experience variability in quarterly cash flow as some customers choose to prepay us upfront for the full amount of their contract value. See "Risk Factors— Our sales cycles can be long, unpredictable and vary seasonally, which can cause significant variation in the number and size of transactions that close in a particular quarter."

Critical Accounting Policies and Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported revenues and expenses during the reporting periods. These items are monitored and analyzed by us for changes in facts and circumstances, and material changes in these estimates could occur in the future. We base our estimates on 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. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ from these estimates under different assumptions or conditions and such differences could be material. While our significant accounting policies are more fully described in Note 2 in the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we believe that the following accounting policies are critical to the process of making significant judgments and estimates in the preparation of our audited consolidated financial statements.

Revenue Recognition

In accordance with ASC 606, revenue is recognized when a customer obtains control of promised services, consisting of subscriptions of our software platform, professional services and historical software products sold on a perpetual license basis. The amount of revenue recognized reflects the consideration that we expect to be entitled to receive in exchange for these services. We apply the following five steps to recognize revenue:

1) Identify the contract with a customer. We consider the terms and conditions of our contracts to identify contracts under ASC 606. We consider that we have a contract with a customer when the contract is approved, we can identify each party's rights regarding the services to be transferred, we can identify the payment terms for the services, we have determined the customer has the ability and intent to pay and the contract has commercial substance. We use judgment in determining the customer's ability and intent to pay, which is based upon factors including the customer's historical payment experience or, for new customers, credit and financial information pertaining to the customers.

2) Identify the performance obligations in the contract . Performance obligations in our contracts are identified based on the services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from us, and are distinct in the context of the contract, whereby the transfer of the services is separately identifiable from other promises in the contract. Our performance obligations consist of (i) subscriptions consisting of (a) licenses, (b) post contract support ("PCS"), which includes real-time support and online access to documentation, technical resources and discussion forums, and (c) rights to continued delivery of unspecified upgrades, major releases and patches, (ii) professional services and (iii) other software offerings consisting of licenses and maintenance.

3) Determine the transaction price. We determine transaction price based on the consideration to which we expect to be entitled in exchange for transferring services to the customer. In determining the transaction price, any variable consideration would be considered, to the extent applicable, if, in our judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. None of our contracts contain a significant financing component.

4) Allocate the transaction price to performance obligations in the contract. If the contract contains a single performance obligation, the entire transaction price is allocated to that performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price ("SSP"). The transaction price in our subscription offering is allocated to the performance obligations that are rendered over time.

5) Recognize revenue when or as we satisfy a performance obligation. Revenue is recognized at the time the related performance obligation is satisfied by transferring the promised services to a customer. We recognize revenue when we transfer control of the services to our customers for an amount that reflects the consideration that we expect to receive in exchange for those services. All revenue is generated from contracts with customers. For subscription arrangements, we also provide PCS and continuous unspecified upgrades, major releases and patches over the course of the subscription term, and services are therefore delivered over the life of the contract.

Subscription

We generate revenue from subscription sales of our software platform. The subscription offering provides customers with a term-based license to our platform, which includes, among other items, open-source software, support, security updates, enhancements, upgrades and compatibility to certified systems, all of which are offered on an if and when available basis. The fixed consideration related to subscription revenue is recognized ratably over the contract term beginning on the date that our platform is made available to the customer.

The typical subscription term is one to three years. Our contracts are non-cancelable over the contract term. Customers have the right to terminate their contracts generally only if we breach the contract and we fail to remedy the breach in accordance with the contractual terms.

Subscription revenue also includes certain historical software products that are sold on a perpetual license basis. Software revenue is recognized when the product is delivered to the customer. The risk of loss transfers and acceptance of the software license occurs when the license is made available for download.

Services

Services revenue is primarily derived from our Labs offering, as well as implementation and other professional services. To a lesser extent, services revenue also includes revenue from maintenance and support from perpetual licenses associated with our legacy data and application products. Labs, implementation and other services revenue are provided on a time and materials basis and recognized over time as services are delivered. Maintenance revenue related to legacy software licenses is recognized ratably over the term as the obligation to the customer is fulfilled.

Contracts with Multiple Performance Obligations

Most of our contracts with customers contain multiple promised services consisting of (i) our subscriptions and (ii) our services that are distinct and accounted for separately. The transaction price is allocated to the separate performance obligations on a relative SSP basis. We determine SSP based on our overall pricing and discounting objectives, taking into consideration the geographical region of the customer, type of offering, and value of contracts for the type of subscription and services sold.

Variable Consideration

Revenue from sales is recorded at the net sales price, which is the transaction price, and includes estimates of variable consideration. The amount of variable consideration that is included in the transaction price is constrained, and is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue will not occur when the uncertainty is resolved.

We provide support to our customers on an ongoing basis throughout the subscription term. Fees paid for support are non-refundable. Customers must deploy the then-current major release of our software to receive support. We do not offer refunds, rebates or credits to our customers in the normal course of business. The impact of other forms of variable consideration has not been material in the periods presented.

Sales through Agency Arrangements with Strategic Partners

We have separate agency arrangements with Dell and VMware, where Dell and Vmware invoice our customers and collect invoiced amounts on our behalf. We bear the collectability risk if customers default on payments.

Deferred Revenue

Contract liabilities consist of deferred revenue and include payments received in advance of performance under the contract. Such amounts are recognized as revenue over the contractual period.

We receive payments from customers based upon contractual billing schedules; accounts receivable are recorded when the right to consideration becomes unconditional. We generally bill our customers annually in advance, although for our multi-year contracts, some customers prefer to pay the full multi-year contract amount in advance. Payment terms on invoiced amounts are typically 30 to 90 days. Contract assets include amounts related to our contractual right to consideration for both completed and partially completed performance obligations that may not have been invoiced; such amounts have been insignificant to date.

Costs to Obtain and Fulfill a Contract

We capitalize sales commissions and agency fees that are incremental to the acquisition of all contracts with customers. These costs are recorded as deferred sales commissions on the consolidated balance sheets. We determine whether costs should be deferred based on our sales compensation plans and agency agreements when the costs are in fact incremental and would not have occurred absent the customer contract. The deferred commission amounts are recoverable through the future revenue streams under the non-cancelable customer contracts.

In fiscal 2019, commissions paid upon the acquisition of a new subscription customer, or the expansion of an existing subscription customer, are amortized over an estimated period of benefit which has been determined to be the expected customer life. Commissions paid for renewals of existing subscription customer contracts are amortized over the term of the contracts. In fiscal 2018 and prior, commissions paid upon the acquisition of an initial subscription contract and any subsequent renewals were amortized over an estimated period of benefit which was determined to be the contract term. A longer amortization period was not applied as the commission rates paid on initial and renewal sales were commensurate. Commissions paid for services contracts are amortized over the expected service delivery periods of the services. Amortization is recognized on a straight-line basis and included in sales and marketing expense in the consolidated statements of operations. We periodically review these deferred costs to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these deferred sales commissions. There were no material impairment losses for deferred sales commissions for fiscal 2019, fiscal 2018 and fiscal 2017.

Intangible Assets and Goodwill

Intangible assets include developed technology, trademarks and trade names, customer relationships and customer lists and non-competition agreements. Intangible assets include those intangible assets contributed by Dell and VMware upon our formation that are not yet fully amortized as of February 1, 2019 and February 2, 2018, as well as intangible assets from our acquisitions of businesses. Intangible assets are amortized based on either the pattern in which the economic benefits of the intangible assets are estimated to be realized or on a straight-line basis, which approximates the economic benefit pattern.

Finite-lived intangible assets are reviewed for impairment when events or changes indicate the carrying amount of an asset may not be recoverable. Recoverability of these assets is measured by comparison of their carrying amount to future undiscounted cash flows to be generated. If impairment is indicated based on a comparison of the assets' carrying values and the undiscounted cash flows, the impairment loss is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets.

Goodwill includes goodwill generated by our acquisitions of businesses as well as goodwill related to our formation. In conjunction with our formation, Dell and VMware contributed approximately $635 million of goodwill that represented the carrying values of the underlying contributed businesses that continue to operate as of fiscal 2019. Goodwill is not amortized and is carried at its historical cost. Goodwill is tested for impairment on an annual basis in the fourth fiscal quarter, or sooner if an indicator of impairment occurs. To determine whether goodwill is impaired, we perform either a qualitative or quantitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. For the qualitative analysis, we assess certain factors to determine if there is an indication of an impairment. For the quantitative analysis, we compare the fair value of our reporting units to their carrying values. If the estimated fair value exceeds book value, goodwill is considered not to be impaired and no additional steps are necessary. However, if the fair value of the reporting unit is less than book value, we record an impairment charge for the difference. We have determined the fair value of our reporting units by using an income based approach. Significant assumptions in our analysis include estimates for forecast revenue and earnings, terminal growth rates, weighted average cost of capital, changes in net working capital and taxes. There were no impairment charges in the fiscal periods presented.

Stock-Based Compensation

Our stock-based compensation includes awards related to Pivotal stock and awards previously granted by EMC Corporation ("EMC") and VMware to certain employees who transferred to Pivotal at our formation and during subsequent years. These Pivotal employees have been allowed to retain and vest in their historical EMC or VMware awards, in each case, so long as they remain employed by Pivotal and such awards are outstanding. Awards granted by EMC are no longer outstanding as the vesting of these awards was automatically accelerated on the last trading day prior to the effective date of Dell's acquisition of EMC. Compensation expense related to stock-based transactions is measured and recognized in the financial statements based on fair value. In general, the fair value of each option award is estimated on the grant date using the Black-Scholes option-pricing model and a single option award approach. This model requires that at the date of grant we determine the fair value of the underlying common stock, the expected term of the award, the expected volatility, risk-free interest rates and expected dividend yield. The stock-based compensation expense, net of forfeitures, is recognized using a straight-line basis over the requisite service periods of the awards, which is generally four years. We estimated a forfeiture rate, based on an analysis of actual historical forfeitures, to calculate stock-based compensation expense.

Recently Issued Accounting Pronouncements

Information about recently issued accounting pronouncements is presented in Note 2 to our consolidated financial statements included elsewhere in this Annual report.

JOBS Act Accounting Election

The JOBS Act permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We have chosen to opt out of this provision and, as a result, we will comply with new or revised accounting standards as required when they are adopted. This decision to opt out of the extended transition period under the JOBS Act is irrevocable.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk in the ordinary course of business.

Credit and interest rate risk

The fair values of our cash and cash equivalents are exposed to counterparty credit risk. Accordingly, while we periodically review our portfolio in an effort to mitigate counterparty risk, the principal values of our cash and cash equivalents could suffer a loss of value. Any future borrowings incurred under the credit agreement would accrue interest at a floating rate based on a formula tied to certain market rates at the time of incurrence. A 10% increase or decrease in interest rates would not have a material effect on our interest expense.

Concentration risk

As of February 1, 2019 and February 2, 2018, no individual customer represented 10% or more of accounts receivable.

Dell and VMware invoice our customers and collect invoiced amounts on our behalf. As of February 1, 2019 and February 2, 2018, $161.5 million and $83.3 million invoiced on our behalf by Dell and VMware was recorded in accounts receivable, respectively.

Foreign currency risk

Although 23% of our total revenue for fiscal 2019 was derived from sales outside the United States, the majority of such revenue is from sales transactions that are denominated in U.S. dollars. For transactions denominated in a currency other than the functional currency, we are exposed to risks of foreign currency fluctuation and are subject to transaction gains and losses, which are recorded as other expense, net in the consolidated statements of operations.

Our results of operations and cash flows have been and will continue to be subject to fluctuations because of changes in foreign currency exchange rates, particularly changes in exchange rates between the U.S. Dollar and the British Pound, the Euro and the Canadian Dollar, the currencies of countries where we currently have our most significant international operations. In the current year, the foreign currency rate fluctuations do not have a material effect on our results of operations and cash flows. As our international operations grow, our risks associated with fluctuation in currency rates will become greater, and we will continue to reassess our approach to managing this risk.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

PIVOTAL SOFTWARE, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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

The supplementary financial information required by this Item 8 is included in Part II, Item 7 under the caption "Quarterly Results of Operations", which is incorporated herein by reference.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Pivotal Software, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Pivotal Software, Inc. and its subsidiaries (the "Company") as of February 1, 2019 and February 2, 2018, and the related consolidated statements of operations, comprehensive loss, redeemable convertible preferred stock and stockholders' (deficit) equity and cash flows for each of the three years in the period ended February 1, 2019, including 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 financial position of the Company as of February 1, 2019 and February 2, 2018, and the results of its operations and its cash flows for each of the three years in the period ended February 1, 2019 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated 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 of these consolidated financial statements 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 consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
March 29, 2019

We have served as the Company's auditor since 2013.

Pivotal Software, Inc.

Consolidated Balance Sheets
(in thousands, except per share amounts)

	February 1, 2019	February 2, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 701,733	$ 73,012
Accounts receivable, less allowance for doubtful accounts of $4,266 and $3,264 as of February 1, 2019 and February 2, 2018, respectively	308,492	210,677
Due from Parent	951	31,096
Deferred sales commissions, current	39,572	38,937
Other assets, current	16,738	13,012
Total current assets	1,067,486	366,734
Property, plant and equipment, net	27,879	31,985
Intangible assets, net	18,680	26,651
Goodwill	696,226	696,226
Deferred income taxes	258	463
Deferred sales commissions, noncurrent	35,522	24,890
Other assets, noncurrent	4,417	6,448
Total assets	$ 1,850,468	$ 1,153,397
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable	$ 18,421	$ 17,214
Due to Parent	20,241	15,451
Accrued expenses	64,723	64,251
Income taxes payable	1,232	1,748
Deferred revenue, current	376,985	260,341
Other liabilities, current	4,373	1,109
Total current liabilities	485,975	360,114
Deferred revenue, noncurrent	89,603	57,126
Deferred income taxes	—	427
Debt, noncurrent	—	20,000
Other liabilities, noncurrent	9,412	7,931
Total liabilities	584,990	445,598
Commitments and contingencies (Note 15)		
Redeemable convertible preferred stock	—	1,248,327
Stockholders' equity (deficit):		
Class A common stock, $0.01 par value; 4,000,000 and 605,000 shares authorized as of February 1, 2019 and February 2, 2018, respectively; 90,124 and 4,293 shares issued and outstanding as of February 1, 2019 and February 2, 2018, respectively	901	43
Class B common stock, $0.01 par value; 500,000 and 375,000 shares authorized as of February 1, 2019 and February 2, 2018, respectively; 175,514 and 65,048 shares issued and outstanding as of February 1, 2019 and February 2, 2018, respectively	1,755	650
Additional paid-in capital	2,540,921	595,113
Accumulated deficit	(1,284,503)	(1,142,600)
Accumulated other comprehensive income	5,687	5,554
Total Pivotal stockholders' equity (deficit)	1,264,761	(541,240)
Non-controlling interest	717	712
Total stockholders' equity (deficit)	1,265,478	(540,528)
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	$ 1,850,468	$ 1,153,397

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

Pivotal Software, Inc.

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

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
Revenue:			
Subscription	$ 400,866	$ 259,018	$ 149,995
Services	256,628	250,418	266,272
Total revenue	657,494	509,436	416,267
Cost of revenue:			
Subscription	32,142	30,472	31,253
Services	208,573	197,922	203,096
Total cost of revenue	240,715	228,394	234,349
Gross profit	416,779	281,042	181,918
Operating expenses:			
Sales and marketing	286,385	221,187	194,322
Research and development	196,406	160,947	152,122
General and administrative	80,802	67,204	61,994
Total operating expenses	563,593	449,338	408,438
Loss from operations	(146,814)	(168,296)	(226,520)
Other income (expense), net	5,486	2,145	(3,732)
Loss before provision for (benefit from) income taxes	(141,328)	(166,151)	(230,252)
Provision for (benefit from) income taxes	570	(2,637)	2,614
Net loss	(141,898)	(163,514)	(232,866)
Less: Net loss (income) attributable to non-controlling interest	(5)	(1)	329
Net loss attributable to Pivotal	$ (141,903)	$ (163,515)	$ (232,537)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.64)	$ (2.38)	$ (3.45)
Weighted average shares used in computing net loss per share attributable to common stockholders, basic and diluted	221,149	68,574	67,337

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

Pivotal Software, Inc.

Consolidated Statements of Comprehensive Loss
(in thousands)

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
Net loss	$ (141,898)	$ (163,514)	$ (232,866)
Foreign currency translation adjustments	133	(1,427)	854
Comprehensive loss	(141,765)	(164,941)	(232,012)
Less: Net Loss (income) attributable to the non-controlling interest	(5)	(1)	329
Comprehensive loss attributable to Pivotal	$ (141,770)	$ (164,942)	$ (231,683)

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

Pivotal Software, Inc.

Consolidated Statements of Cash Flows
(in thousands)

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
Cash flows from operating activities:			
Net loss	$ (141,898)	$ (163,514)	$ (232,866)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	18,158	22,237	24,602
Stock-based compensation expense	69,033	28,629	28,851
Provision for doubtful accounts	2,104	609	2,325
Deferred income taxes	(150)	(6,969)	1,214
Gain on sale of investment	(3,234)	—	—
Other	1,470	1,178	(79)
Changes in assets and liabilities, net of acquisitions			
Accounts receivable	(99,860)	(66,136)	(95,435)
Due from Parent	545	(1,096)	—
Deferred sales commissions	(11,268)	(10,360)	(14,608)
Other assets	(2,566)	2,647	(6,358)
Accounts payable	1,357	12,636	(5,963)
Due to Parent	5,910	(34,984)	52,681
Net payable due to Dell (Note 14)	—	—	1,571
Deferred revenue	149,344	74,360	69,953
Accrued expenses	1,468	21,549	2,409
Other liabilities	4,232	2,723	5,352
Net cash provided by (used in) operating activities	(5,355)	(116,491)	(166,351)
Cash flows from investing activities:			
Additions to property, plant and equipment	(9,411)	(12,877)	(19,533)
Cash paid for business acquisitions	—	—	(7,800)
Cash paid for cost method investment	—	—	(1,583)
Proceeds from sale of investment	3,234	—	—
Net cash used in investing activities	(6,177)	(12,877)	(28,916)
Cash flows from financing activities:			
Proceeds from the initial public offering, net of issuance costs paid	544,421	—	—
Proceeds from the issuance of Series C & C-1 redeemable convertible preferred stock, net of issuance costs	—	—	252,549
Proceeds from the issuance of common stock	61,436	9,757	5,727
Proceeds from employee stock plans	9,371	—	—
Contribution from Dell	44,286	42,874	—
Borrowings on credit facility, net of debt issuance costs	15,000	18,815	—
Repayments on credit facility	(35,000)	—	—
Net cash provided by financing activities	639,514	71,446	258,276
Effect of exchange rate changes on cash and cash equivalents	739	(2,939)	1,002
Net increase (decrease) in cash and cash equivalents	628,721	(60,861)	64,011
Cash and cash equivalents at beginning of fiscal period	73,012	133,873	69,862
Cash and cash equivalents at end of fiscal period	$ 701,733	$ 73,012	$ 133,873
Supplemental disclosure of cash flow information:			
Cash paid during the period for interest	$ 402	$ 329	$ —
Cash paid during the period for income taxes	$ 1,229	$ 892	$ 3,550
Supplemental disclosure of non-cash financing:			
Net payable due to Dell converted to preferred stock (Note 14)	$ —	$ —	$ 400,000
Settlement of amounts due to Parent	$ —	$ 4,766	$ —
Investment from Dell included in due from Parent	$ 400	$ 30,000	$ —

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

Pivotal Software, Inc.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity

(in thousands)

	Redeemable Convertible Preferred Stock		Class A Common Stock		Class B Common Stock						
	Shares	**Amount**	**Shares**	**Par value**	**Shares**	**Par value**	**Additional paid-in capital**	**Accumulated deficit**	**Accumulated other comprehensive income**	**Non-controlling interest**	**Total stockholders' deficit**
Balances at January 29, 2016	85,111	$ 595,778	1,683	$ 17	65,048	$ 650	$ 444,687	$ (746,548)	$ 6,127	$ 1,040	$ (294,027)
Stock-based compensation (Pivotal equity)							23,996				23,996
Stock issued through exercise of stock options			984	10			5,717				5,727
Issuance of Preferred Series C, net of issuance costs	22,397	233,000									—
Issuance of Preferred Series C-1, net of issuance costs	40,371	419,549									—
Investment from Dell, net							4,396				4,396
Investment from VMware							1,276				1,276
Translation adjustment									854		854
Net Loss								(232,537)		(329)	(232,866)
Balances at February 3, 2017	147,879	$ 1,248,327	2,667	$ 27	65,048	$ 650	$ 480,072	$ (979,085)	$ 6,981	$ 711	$ (490,644)
Stock-based compensation (Pivotal equity)							28,468				28,468
Stock issued through exercise of stock options			1,626	16			9,741				9,757
Investment from Dell, net							76,540				76,540
Investment from VMware							292				292
Translation adjustment									(1,427)		(1,427)
Net Loss								(163,515)		1	(163,514)
Balances at February 2, 2018	147,879	$ 1,248,327	4,293	$ 43	65,048	$ 650	$ 595,113	$ (1,142,600)	$ 5,554	$ 712	$ (540,528)
Stock-based compensation (Pivotal equity)							67,943				67,943
Stock issued through exercise of stock options & employee stock programs			9,752	97			71,335				71,432
Conversion of preferred stock to common stock	(147,879)	(1,248,327)	37,412	374	110,466	1,105	1,246,848				1,248,327
Initial public offering, net of issuance costs			38,667	387			544,034				544,421
Investment from Dell, net							15,582				15,582
Investment from VMware							66				66
Translation adjustment									133		133
Net Loss								(141,903)		5	(141,898)
Balances at February 1, 2019	—	$ —	90,124	$ 901	175,514	$ 1,755	$ 2,540,921	$ (1,284,503)	$ 5,687	$ 717	$ 1,265,478

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

Notes to Consolidated Financial Statements

1. Overview and Basis of Presentation

Company and Background

Pivotal Software, Inc. and its consolidated subsidiaries ("Pivotal," "we," "us," "our" and the "Company") provide a leading cloud-native application platform, Pivotal Cloud Foundry ("PCF"), and differentiated services, Pivotal Labs ("Labs"). Our leading software platform and differentiated services enable enterprises to adopt modern software and development methodologies that transform their products and the economics of their business. We help make software development and operations a strategic advantage for our customers to revolutionize the experiences they offer their own customers, drive new sources of revenue and improve the speed and cost of business operations. We were incorporated in the State of Delaware on April 1, 2013.

We have one primary business activity: to provide an integrated solution that combines a cloud-native platform and strategic services. Our chief operating decision maker, who is the President and Chief Executive Officer, makes operating decisions, assesses performance, and allocates resources based upon discrete financial information at the consolidated level. Accordingly, we operate our business as a single reportable segment.

Reverse Stock Split

In April 2018, the Company's board of directors and stockholders approved an amendment to the Company's amended and restated certificate of incorporation effecting a 1-for-2 reverse stock split of the Company's issued and outstanding shares of common stock and preferred stock. The reverse split was effected on April 6, 2018. The par values of the common stock and redeemable convertible preferred stock were not adjusted as a result of the reverse stock split. All issued and outstanding share and per share amounts included in the accompanying consolidated financial statements have been adjusted to reflect this reverse stock split for all periods presented.

Fiscal Years

Our fiscal year is the 52- or 53-week period ending on the Friday nearest to January 31. Our 2019 fiscal year ("fiscal 2019") ended on February 1, 2019 , our 2018 fiscal year ("fiscal 2018") ended on February 2, 2018 and our 2017 fiscal year ("fiscal 2017") ended on February 3, 2017 .

Initial Public Offering

On April 19, 2018, we commenced an initial public offering ("IPO"), which closed on April 24, 2018. As part of the IPO, we issued and sold 38,667,000 shares Class A common stock, which included 5,550,000 shares sold pursuant to the exercise by the underwriters' option to purchase additional shares at a public offering price of $15.00 per share. We received net proceeds of $548.1 million from the IPO, after underwriters' discounts and commissions and before deducting offering costs of approximately $3.7 million . Prior to the completion of the IPO, all shares of Series A and C-1 redeemable convertible preferred stock then outstanding were converted into 110,466,653 shares of Class B common stock on a one -to-one basis and all shares of Series B and C redeemable convertible preferred stock then outstanding were converted into 37,412,396 shares of Class A common stock on a one -to-one basis.

Basis of Presentation

Our historical financial statements have been prepared on a basis in accordance with generally accepted accounting principles in the United States ("GAAP").

Following the acquisition of EMC Corporation by Dell Technologies Inc. ("Dell") in September 2016, our majority-controlling stockholder became Dell. VMware, Inc. ("VMware"), which is also a majority-owned subsidiary of Dell, and Dell are collectively referred to as the "Parent" in these notes to the consolidated financial statements. Our results of operations and financial position are consolidated with Dell's financial statements. Pushdown accounting was not applied as a result of the Dell acquisition, and consequently no change in basis is reflected in our consolidated financial statements.

Our financial information includes estimates and allocations of certain corporate functions provided to us by Dell. These estimates and allocations of costs are considered reasonable by our management. Our historical results are not necessarily indicative of what our results of operations, financial position, cash flows or costs and expenses would have been, or will be in future periods, had we transacted with a third party during the periods presented.

Prior to the IPO, we did not file separate U.S. tax returns as we were included in a tax grouping with other Dell entities for U.S. federal tax purposes and for most U.S. state tax jurisdictions. Accordingly, we prepared our financial statements on a separate return basis. As of the date of the completion of our IPO, April 24, 2018, we no longer qualified for inclusion in the Dell's U.S federal consolidated tax return and we adjusted our federal and international deferred taxes to the actual balances carried into our separate returns. Our federal deconsolidation from Dell reduces the amount of benefit or expense we receive from the tax sharing agreement in prospective periods to the benefit or expense that Dell realizes from our inclusion in their unitary state returns. See Note 9 and 14 for more information.

2. Summary of Significant Accounting Policies

Consolidation

The consolidated financial statements and accompanying notes are prepared in accordance with GAAP and include our accounts and the accounts of our majority-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Non-controlling Interest

In October 2015, we and Telstra Corporation Limited ("Telstra") jointly established a new company, Pivotal Labs Sydney Pty Limited ("Pivotal Sydney"), in Australia. The financial results of Pivotal Sydney have been consolidated with our results for fiscal 2019 , fiscal 2018 and fiscal 2017 , as we are the controlling stockholder. The portion of the results of operations of Pivotal Sydney allocable to Telstra is shown as net loss (income) attributable to the non-controlling interest in our consolidated statements of operations for fiscal 2019 , fiscal 2018 and fiscal 2017 . Additionally, the cumulative portion of the results of operations of Pivotal Sydney allocable to Telstra, along with the interest in the net assets of Pivotal Sydney attributable to Telstra, is shown as a component of non-controlling interest on our consolidated balance sheets.

Use of Accounting 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. Estimates are revised as additional information becomes available. In the consolidated statements of operations, estimates are used when accounting for revenue arrangements, including determination of standalone selling price of performance obligations, the amortization period of deferred commissions, income taxes and the related valuation allowance and valuation of common stock options. In the consolidated balance sheets, estimates are used in determining the valuation and recoverability of assets, such as accounts receivable, fixed assets, deferred sales commissions, goodwill and other identifiable intangible assets, and estimates are used in determining the reported amounts of liabilities, including the impact of contingencies, all of which also impact the consolidated statements of operations. Actual results could differ from these estimates.

Revenue Recognition

In accordance with ASC 606, revenue is recognized when a customer obtains control of promised services, consisting of subscriptions of our software platform, professional services and historical software products sold on a perpetual license basis. The amount of revenue recognized reflects the consideration that we expect to be entitled to receive in exchange for these services. We apply the following five steps to recognize revenue:

1) Identify the contract with a customer. We consider the terms and conditions of our contracts to identify contracts under ASC 606. We consider that we have a contract with a customer when the contract is approved, we can identify each party's rights regarding the services to be transferred, we can identify the payment terms for the services, we have determined the customer has the ability and intent to pay, and the contract has commercial substance. We use judgment in determining the customer's ability and intent to pay, which is based upon factors including the customer's historical payment experience or, for new customers, credit and financial information pertaining to the customers.

2) Identify the performance obligations in the contract. Performance obligations in our contracts are identified based on the services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from us, and are distinct in the context of the contract, whereby the transfer of the services is separately identifiable from other promises in the contract. Our performance obligations consist of (i) subscriptions consisting of (a) licenses, (b) post contract support ("PCS"), which includes real-time support and online access to documentation, technical resources and discussion forums and (c) rights to continued delivery of unspecified upgrades, major releases and patches, (ii) professional services and (iii) other software offerings consisting of licenses and maintenance.

3) Determine the transaction price. We determine transaction price based on the consideration to which we expect to be entitled in exchange for transferring services to the customer. In determining the transaction price, any variable consideration would be considered, to the extent applicable, if, in our judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. None of our contracts contain a significant financing component.

4) Allocate the transaction price to performance obligations in the contract. If the contract contains a single performance obligation, the entire transaction price is allocated to that performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price ("SSP"). The transaction price in our subscription offering is allocated to the performance obligations that are rendered over time.

5) Recognize revenue when or as we satisfy a performance obligation. Revenue is recognized at the time the related performance obligation is satisfied by transferring the promised services to a customer. We recognize revenue when we transfer control of the services to our customers for an amount that reflects the consideration that we expect to receive in exchange for those services. All revenue is generated from contracts with customers. For subscription arrangements, we also provide PCS and continuous unspecified upgrades, major releases and patches over the course of the subscription term, and services are therefore delivered over the life of the contract.

Subscription

We generate revenue from subscription sales of our software platform. The subscription offering provides customers with a term-based license to our platform, which includes, among other items, open-source software, support, security updates, enhancements, upgrades and compatibility to certified systems, all of which are offered on an if and when available basis. The fixed consideration related to subscription revenue is recognized ratably over the contract term beginning on the date that our platform is made available to the customer.

The typical subscription term is one to three years . Our contracts are non-cancelable over the contract term. Customers have the right to terminate their contracts generally only if we breach the contract and we fail to remedy the breach in accordance with the contractual terms.

Subscription revenue also includes certain historical software products that are sold on a perpetual license basis. Software revenue is recognized when the product is delivered to the customer. The risk of loss transfers and acceptance of the software license occurs when the license is made available for download. Perpetual license revenue was 2% or less of total revenue in fiscal 2019 , fiscal 2018 and fiscal 2017 .

Services

Services revenue is primarily derived from our Labs offering, as well as implementation and other professional services. To a lesser extent, services revenue also includes revenue from maintenance and support from perpetual licenses associated with our legacy data and application products. Labs, implementation and other services revenue are provided on a time and materials basis and recognized over time as services are delivered. Maintenance revenue related to legacy software licenses is recognized ratably over the term as the obligation to the customer is fulfilled.

Contracts with Multiple Performance Obligations

Most of our contracts with customers contain multiple promised services consisting of (i) our subscriptions and (ii) our services that are distinct and accounted for separately. The transaction price is allocated to the separate performance obligations on a relative SSP basis. We determine SSP based on our overall pricing and discounting objectives, taking into consideration the geographical region of the customer, type of offering, and value of contracts for the type of subscription and services sold.

Variable Consideration

Revenue from sales is recorded at the net sales price, which is the transaction price, and includes estimates of variable consideration. The amount of variable consideration that is included in the transaction price is constrained, and is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue will not occur when the uncertainty is resolved.

We provide support to our customers on an ongoing basis throughout the subscription term. Fees paid for support are non-refundable. Customers must deploy the then-current major release of our software to receive support. We do not offer refunds, rebates or credits to our customers in the normal course of business. The impact of other forms of variable consideration has not been material in the periods presented.

Sales through Agency Arrangements with Strategic Partners

We have separate agency arrangements with Dell and VMware, where Dell and VMware invoice our customers and collect invoiced amounts on our behalf. We bear the collectability risk if customers default on payments.

In fiscal 2018 , our agency arrangement with VMware was amended, and we concluded that based upon this amendment we were the principal of the transaction, and therefore, revenue was recognized on a gross basis. In fiscal 2017 , our agency arrangement with Dell was amended, and we concluded that based upon this amendment we were the principal of the transaction, and therefore, revenue is recognized on a gross basis, prior to this period revenue was recognized net of agency fees.

Disaggregation of Revenue

We sell our subscription contracts and related services to customers located in two primary geographical markets: the United States and International. No country other than the United States represented 10% or more of our revenue in fiscal 2019 , fiscal 2018 and fiscal 2017 . See Note 16 for more information.

Deferred Revenue

Contract liabilities consist of deferred revenue and include payments received in advance of performance under the contract. Such amounts are recognized as revenue over the contractual period. During fiscal 2019 , fiscal 2018 and fiscal 2017 we recognized revenue of $258.7 million , $177.0 million and $103.4 million respectively, which was included in the corresponding deferred revenue balance at the beginning of the reporting periods presented.

We receive payments from customers based upon contractual billing schedules; accounts receivable are recorded when the right to consideration becomes unconditional. We generally bill our customers annually in advance, although for our multi-year contracts, some customers prefer to pay the full multi-year contract amount in advance. Payment terms on invoiced amounts are typically 30 to 90 days . Contract assets include amounts related to our contractual right to consideration for both completed and partially completed performance obligations that may not have been invoiced; such amounts have been insignificant to date.

Costs to Obtain and Fulfill a Contract

We capitalize sales commissions and agency fees that are incremental to the acquisition of all contracts with customers. These costs are recorded as deferred sales commissions on the consolidated balance sheets. We determine whether costs should be deferred based on our sales compensation plans and agency agreements when the costs are in fact incremental and would not have occurred absent the customer contract. The deferred commission amounts are recoverable through the future revenue streams under the non-cancelable customer contracts.

In fiscal 2019, commissions paid upon the acquisition of a new subscription customer, or the expansion of an existing subscription customer, are amortized over an estimated period of benefit which has been determined to be the expected customer life. Commissions paid for renewals of existing subscription customer contracts are amortized over the term of the contracts. In fiscal 2018 and prior, commissions paid upon the acquisition of an initial subscription contract and any subsequent renewals were amortized over an estimated period of benefit which was determined to be the contract term. A longer amortization period was not applied as the commission rates paid on initial and renewal sales were commensurate. Commissions paid for services contracts are amortized over the expected service delivery periods of the services. Amortization is recognized on a straight-line basis and included in sales and marketing expense in the consolidated statements of operations. We periodically review these deferred costs to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these deferred sales commissions. There were no material impairment losses for deferred sales commissions for fiscal 2019 , fiscal 2018 and fiscal 2017 .

The following table presents a rollforward of our deferred sales commissions (in thousands):

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
Beginning balance	$ 63,827	$ 53,467	$ 38,860
Additions to deferred sales commissions	60,958	55,804	53,401
Amortization of deferred sales commissions	(49,691)	(45,444)	(38,794)
Ending balance	$ 75,094	$ 63,827	$ 53,467
Deferred sales commissions, current	$ 39,572	$ 38,937	$ 33,838
Deferred sales commissions, noncurrent	35,522	24,890	19,629
Total deferred sales commissions	$ 75,094	$ 63,827	$ 53,467

Remaining Performance Obligations

The typical contract term for subscription contracts is one to three years , while the contract term for professional services is generally less than twelve months . Our contracts are non-cancelable over the contractual term. As of February 1, 2019 , the aggregate amount of the transaction price allocated to billed and unbilled remaining performance obligations for subscriptions and services for which revenue has not yet been recognized was approximately $990 million . We expect to recognize approximately 50% of the transaction price as subscription or services revenue over the next 12 months and the remainder thereafter. As of February 2, 2018 , the aggregate amount of the transaction price allocated to billed and unbilled remaining performance obligations for subscriptions and services for which revenue has not yet been recognized was approximately $820 million .

Fair Value Measurements

The carrying amounts of our financial instruments, including cash equivalents, accounts receivable, accounts payable and accrued expenses, approximate their respective fair values due to their short-term nature.

Foreign Currency Translation

The local currency is the functional currency of our subsidiaries, with the exception of Ireland, which uses the U.S. dollar. Assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Income and expense items are translated at daily rates. Gains and losses from foreign currency transactions are included in other income (expense), net, in the consolidated statements of operations. Foreign currency translation adjustments are included in other comprehensive loss.

Cash and Cash Equivalents

Cash and cash equivalents are stated at carrying value, which approximate fair value, and include highly liquid investments with a maturity of 90 days or less at the time of purchase. Our cash and cash equivalents are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices. Our cash equivalents include money market funds of $614.2 million and $0 as of February 1, 2019 and February 2, 2018 , respectively.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount, net of allowance for doubtful accounts. We maintain an allowance for doubtful accounts for the estimated probable losses on uncollectible accounts receivable. The allowance is determined by assessing the creditworthiness of our customers, our collections history, the age of the receivable and current market and economic conditions. For sales invoiced and collected through Dell and VMware, credit risk associated with customers is assumed by us. For details of the arrangements with Dell and VMware, see Note 14. The allowance for doubtful accounts is presented as a reduction in accounts receivable on the consolidated balance sheets. Uncollectible amounts are charged against the allowance account, and the write-offs were not material in the periods presented. The following table presents a rollforward of our allowance for doubtful accounts (in thousands):

	Fiscal Year Ended		
	February 1, 2019	**February 2, 2018**	**February 3, 2017**
Beginning balance	$ 3,264	$ 4,067	$ 1,742
Provision for doubtful accounts	2,104	1,251	2,325
Cash recovered on previously reserved amounts	—	(1,478)	—
Amounts written off	(1,102)	(576)	—
Ending balance	$ 4,266	$ 3,264	$ 4,067

Property, Plant and Equipment

Property, plant and equipment are recorded at cost, net of accumulated depreciation and impairment, if any. Depreciation commences when the asset is placed in service and is recognized on a straight-line basis over the estimated useful lives of the assets, or the shorter of their estimated useful lives or lease term for leasehold improvements, as follows:

	Estimated useful life
Furniture and fixtures	5 - 10 years
Equipment	3 - 5 years
Software	3 - 7 years
Leasehold improvements	5 - 10 years

Upon retirement or disposition, the asset cost and related accumulated depreciation are derecognized with any gain or loss recognized in the consolidated statements of operations. Repair and maintenance costs are expensed as incurred.

Research and Development Expense

Research and development costs are expensed as incurred. Research and development expense consists primarily of personnel costs, including salaries, benefits, bonuses and stock-based compensation, cloud infrastructure costs related to our research and development efforts and allocated overhead costs.

Intangible Assets and Goodwill

Intangible assets include developed technology, trademarks and trade names, customer relationships and customer lists and non-competition agreements. Intangible assets include those intangible assets contributed by Dell and VMware upon our formation that are not yet fully amortized as of February 1, 2019 and February 2, 2018 , as well as intangible assets from our acquisitions of businesses. Intangible assets are amortized based on either the pattern in which the economic benefits of the intangible assets are estimated to be realized or on a straight-line basis, which approximates the economic benefit pattern. The estimated useful lives of intangible assets are as follows:

	Estimated useful life
Customer relationships	6 - 20 years
Developed technology	4 - 9 years
Trademarks and trade names	7 - 10 years
Non-compete agreements	7 years

Finite-lived intangible assets are reviewed for impairment when events or changes indicate the carrying amount of an asset may not be recoverable. Recoverability of these assets is measured by comparison of their carrying amount to future undiscounted cash flows to be generated. If impairment is indicated based on a comparison of the assets' carrying values and the undiscounted cash flows, the impairment loss is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets.

Goodwill includes goodwill generated by our acquisitions of businesses as well as goodwill related to our formation. In conjunction with our formation, Dell and VMware contributed approximately $635 million of goodwill that represented the carrying values of the underlying contributed businesses that continue to operate as of fiscal 2019 . Goodwill is not amortized and is carried at its historical cost. Goodwill is tested for impairment on an annual basis in the fourth fiscal quarter, or sooner if an indicator of impairment occurs. To determine whether goodwill is impaired, we perform either a qualitative or quantitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. For the qualitative analysis, we assess certain factors to determine if there is an indication of an impairment. For the quantitative analysis, we compare the fair value of our reporting units to their carrying values. If the estimated fair value exceeds book value, goodwill is considered not to be impaired and no additional steps are necessary. However, if the fair value of the reporting unit is less than book value, we record an impairment charge for the difference. We have determined the fair value of our reporting units by using an income based approach. Significant assumptions in our analysis include estimates for forecast revenue and earnings, terminal growth rates, weighted average cost of capital, changes in net working capital and taxes. There were no impairment charges in the fiscal periods presented.

Cost Method Investment

In fiscal 2017 , we invested $1.6 million in Series A preferred stock of an early stage startup company. The investment has been accounted for on a cost basis and included within other assets on the consolidated balance sheets. There were no impairment charges in the fiscal periods presented.

Deferred Offering Costs

There were no deferred offering costs outstanding as of February 1, 2019 . In fiscal 2018, deferred offering costs were capitalized and consisted of fees and expenses incurred in connection with the anticipated sale of our common stock in our IPO, including the legal, accounting, printing and other IPO-related costs. Upon completion of the IPO, these deferred IPO costs were reclassified to stockholders' equity (deficit) and recorded against the proceeds from the offering. As of February 2, 2018 , deferred offering costs of $1.2 million were recorded in other assets, noncurrent and in accrued expenses in the consolidated balance sheet.

Advertising

Advertising costs are expensed as incurred. Advertising expense was $5.1 million , $3.9 million and $3.0 million in fiscal 2019 , fiscal 2018 and fiscal 2017 respectively.

Income Taxes

As a result of the IPO, we are no longer included in the Dell's U.S. federal tax return. Our federal and international deferred tax assets and liabilities previously calculated on a separate return basis have been adjusted to reflect only the actual carryforward items which Pivotal has on its separate tax returns. We continue to present on a separate return basis the deferred tax assets and liabilities for those states where we file unitary returns with the Dell group. See Note 9 for more information.

We are required to estimate a provision for income taxes in each of the jurisdictions in which we operate. This process involves estimating the actual current tax exposure in each jurisdiction, including assessing the risks associated with tax audits, together with assessing temporary differences resulting from the different treatment of items for tax and financial reporting purposes. These differences result in deferred tax assets and liabilities, which are included within the consolidated balance sheets. We assess the likelihood that the deferred tax assets will be realized through future taxable income and record a valuation allowance to reduce gross deferred tax assets to an amount we believe is more likely than not to be realized. In the event that actual results differ from these estimates, the provision for income taxes could be materially impacted.

Accounting for Stock-Based Compensation

We recognize compensation expense related to stock options and restricted stock units ("RSUs") on a straight-line basis over the requisite service period, which is generally the four year vesting term of the award. We recognize compensation expense related to shares issued pursuant to the employee stock purchase plan ("ESPP") on a straight-line basis over the offering period. We estimate the fair value of RSUs using the fair value of our common stock on the date of grant. We estimate the fair value of options and ESPP using the Black-Scholes options pricing model. The risk-free interest rate is the yield currently available on U.S Treasury zero-coupon issues with a remaining term approximating the expected term used as the input to the Black-Scholes model. Expected volatility is estimated based on the volatility of a group of comparable public companies based on size, stage of life cycle, profitability, growth and other factors. The expected term represents the period that our stock-based awards are expected to be outstanding. The expected term assumptions were determined based on the vesting terms, exercise terms and contractual lives of the options. The expected term was estimated using the simplified method. We recognize compensation expense net of estimated forfeiture activity, which is based on historical pre-vesting forfeiture rates.

Net Loss per Share Attributable to Common Stockholders

Basic net loss per share is based on the weighted-average effect of all common shares issued and outstanding and is calculated by dividing net loss attributable to common stockholders by the weighted-average shares outstanding during the period. Diluted net loss per share is calculated by dividing net loss by the weighted-average number of common shares used in the basic loss per share calculation plus the number of common shares that would be issued assuming exercise or conversion of all potentially dilutive instruments. We exclude equity instruments from the calculation of diluted loss per share if the effect of including such instruments is anti-dilutive. Since we are in a net loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods as the inclusion of all potentially dilutive securities outstanding would have been anti-dilutive.

Concentration of Risk

Our financial instruments that are exposed to concentration of credit risk consist primarily of cash and cash equivalents and trade account receivables. Cash deposits may be in excess of insured limits. We believe that the financial institutions that hold our cash deposits are financially sound and, accordingly, minimal credit risk exists with respect to these balances.

As of February 1, 2019 and February 2, 2018 , no individual customer represented 10% or more of accounts receivable. No individual customer represented 10% or more of revenue for fiscal 2019 , fiscal 2018 or fiscal 2017 .

Dell and VMware invoice our customers and collect invoiced amounts on our behalf. As of February 1, 2019 and February 2, 2018 , $161.5 million and $83.3 million , respectively, was invoiced on our behalf by Dell and VMware was recorded in accounts receivable.

Recently Issued Accounting Pronouncements

Statement of Cash Flows —In August 2016, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") No. 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments." The update was issued with the objective of reducing the existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows under Topic 230 and other topics. The adoption of this pronouncement was effective beginning with our fiscal 2019 period and had no effect on our financial position, results of operations or liquidity.

Income Taxes —In October 2016, the FASB issued ASU No. 2016-16, " *Intra-Entity Transfers of Assets Other Than Inventory (Topic 740),"* which requires entities to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. Prior to the issuance of this ASU, existing guidance prohibited the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset had been sold to an outside party. The adoption of this pronouncement was effective beginning with our fiscal 2019 period and it had no effect on our financial position, results of operations or liquidity.

Business Combinations —In January 2017, the FASB issued ASU No. 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business," which clarifies when transactions should be accounted for as acquisitions (or disposals) of assets or business. The adoption of this pronouncement was effective beginning with our fiscal 2019 , including interim periods within that fiscal year, and it had no effect on our financial position, results of operations or liquidity.

Intangibles—Goodwill and Other —In January 2017, the FASB issued ASU No. 2017-04, "Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." ASU 2017-04 eliminates Step 2 of the goodwill impairment test, which required us to determine the implied fair value of goodwill by allocating the reporting unit's fair value to each of its assets and liabilities as if the reporting unit was acquired in a business acquisition. Instead, the updated guidance requires an entity to perform its annual or interim goodwill impairment test by comparing the fair value of the reporting unit to its carrying value, and recognizing a non-cash impairment charge for the amount by which the carrying value exceeds the reporting unit's fair value with the loss not exceeding the total amount of goodwill allocated to that reporting unit. The early adoption of this pronouncement was effective beginning with our fiscal 2019 period and it had no effect on our financial position, results of operations or liquidity.

Compensation—Stock Compensation— In May 2017, the FASB issued ASU No. 2017-09, "Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting." The update provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting under Topic 718. The adoption of this pronouncement was effective beginning with our fiscal 2019 period and it had no effect on our financial position, results of operations or liquidity.

Compensation—Stock Compensation— In June 2018, the FASB issued ASU No. 2018-07, "Stock-based Compensation: Improvements to Nonemployee Share-based Payment Accounting", which amends the existing accounting standards for share-based payments to nonemployees. This ASU aligns much of the guidance on measuring and classifying nonemployee awards with that of awards to employees. Under the new guidance, the measurement of nonemployee equity awards is fixed on the grant date. The early adoption of this pronouncement was effective beginning with our fiscal 2019 period and it had no effect on our financial position, results of operations or liquidity.

New Accounting Pronouncements to be Adopted

Leases —In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)," which requires lessees to recognize most lease liabilities 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-of-use asset ("ROU") for the right to use the underlying asset for the lease term. We will adopt the new standard as of February 2, 2019 and will recognize a cumulative-effect adjustment to the opening balance of accumulated deficit as of the adoption date. We will elect the optional transition approach to not apply ASU 2016-02 in the comparative periods presented and the package of practical expedients. We will also elect the practical expedient to not account for lease and non-lease components separately for office space, data center and equipment operating leases. We continue to evaluate the impact of the guidance on our consolidated financial statements and related disclosures and expect a material impact to our balance sheet, with the most significant impact related to our office space operating leases. We do not expect the adoption of ASU 2016-02 to have a material impact to the consolidated statements of operations or to have any impact on our cash flows from operating, investing or financing activities.

Financial Instruments—Credit Losses— In June 2016, the FASB issued ASU No. 2016-13, "Measurement of Credit Losses on Financial Instruments (Topic 326)." ASU 2016-13 changes the impairment model for most financial assets, and will require the use of an expected loss model in place of the currently used incurred loss method. Under this model, entities will be required to estimate the lifetime expected credit loss on such instruments and record an allowance to offset the amortized cost basis of the financial asset, resulting in a net presentation of the amount expected to be collected on the financial asset. The update to the standard is effective for interim and annual periods beginning after December 15, 2019. We are currently evaluating the impact of the adoption of ASU 2016-13 on our consolidated financial statements.

Intangibles—Goodwill and Other—Internal-Use Software— In August 2018, the FASB issued ASU No. 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (Subtopic 350-40)." ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The update to the standard is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Entities can choose to adopt the ASU 2018-15 prospectively or retrospectively. We are currently evaluating the impact of the adoption of ASU 2018-15 on our consolidated financial statements.

3. Property, Plant and Equipment

Property, plant and equipment consisted of the following (in thousands):

	February 1, 2019	February 2, 2018
Furniture and fixtures	$ 7,298	$ 5,961
Equipment	21,471	19,723
Software	6,900	5,423
Leasehold improvements	38,171	37,796
Total property, plant and equipment	73,840	68,903
Accumulated depreciation	(45,961)	(36,918)
Property, plant and equipment, net	$ 27,879	$ 31,985

Depreciation expense recorded in the consolidated statements of operations was $11.6 million , $11.0 million and $9.0 million in fiscal 2019 , fiscal 2018 and fiscal 2017 , respectively.

4. Business Combinations

During fiscal 2017 , we acquired a business for aggregate cash consideration of $7.8 million . The consideration was allocated to the fair value of the assets acquired and liabilities assumed based on estimated fair values as of the acquisition date. The aggregate allocation to goodwill and intangible assets was $7.3 million and $0.5 million , respectively.

Goodwill was calculated as the excess of the consideration over the fair value of the net assets of our prior acquisitions, including intangible assets, and is primarily related to expected synergies from the transactions including complementary products that will enhance our overall product portfolio and expected synergies including developing customer relationships. The goodwill can be deductible for U.S. federal and international income tax purposes.

The results of the acquisition has been included in the consolidated financial statements from the date of purchase. Pro forma results of operations and historical results of operations subsequent to purchase have not been presented as the results and financial positions of, and the purchase prices for, the acquired company was not material to our financial position or results of operations as of or for fiscal 2019 , fiscal 2018 and fiscal 2017 .

5. Intangible Assets and Goodwill

Intangible Assets

Intangible assets, excluding goodwill, consist of (in thousands):

	February 1, 2019			February 2, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	$ 87,573	$ (87,420)	$ 153	$ 90,198	$ (87,153)	$ 3,045
Trademarks and trade names	12,900	(11,612)	1,288	12,900	(10,291)	2,609
Customer relationships and customer lists	55,800	(38,561)	17,239	55,800	(34,803)	20,997
Other	—	—	—	2,750	(2,750)	—
Intangible assets	$ 156,273	$ (137,593)	$ 18,680	$ 158,898	$ (132,247)	$ 26,651

Amortization expense on intangible assets was $6.5 million , $11.2 million and $15.6 million in fiscal 2019 , fiscal 2018 and fiscal 2017 , respectively. During fiscal 2019 we impaired certain purchased technology assets for a total amount of $1.5 million .

As of February 1, 2019, amortization expense on intangible assets for the next five fiscal years is expected to be as follows (in thousands):

Fiscal year	Amortization Expense
2020	$ 4,425
2021	2,496
2022	1,809
2023	1,676
2024	1,422
Thereafter	6,852

Goodwill

There have been no changes in the carrying amounts of goodwill on a consolidated basis for both fiscal 2019 and fiscal 2018 .

An assessment of the recoverability of goodwill is performed, at least annually, in the fourth quarter of each fiscal year. The assessment is performed at the reporting unit level. Authoritative accounting guidance allows companies the option to assess qualitatively whether it is necessary to perform step one of the goodwill impairment test. In assessing the qualitative factors, we considered the following: (1) changes in industry, market conditions, and competitive environment, (2) changes in our enterprise value, taking into consideration the financial metrics of our peer companies, (3) budget-to-actual performance from prior year and (4) other factors such as changes in regulation. For fiscal 2018 , the qualitative assessment was performed to determine whether a quantitative assessment was necessary, and it was determined there were no indicators of potential impairment. For fiscal 2019 , we performed a step 1 assessment to determine whether an impairment existed, and no impairment was required.

6. Fair Value of Financial Assets and Liabilities

Our estimate of fair value for financial assets and financial liabilities is based on the framework established in the fair value accounting guidance. The framework is based on the inputs used in valuation, gives the highest priority to quoted prices in active markets and requires that observable inputs be used in the valuations when available. Management determines fair value using the following hierarchy:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Our cash and cash equivalents of $701.7 million and $73.0 million as of February 1, 2019 and February 2, 2018 , respectively, are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices. Our cash equivalents include money market funds of $614.2 million and $0 as of February 1, 2019 and February 2, 2018 , respectively.

7. Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	February 1, 2019	February 2, 2018
Accrued salaries, commissions and benefits	$ 45,645	$ 47,008
Other	19,078	17,243
Accrued expenses	$ 64,723	$ 64,251

8. Debt

On September 8, 2017, we entered into a credit agreement and related security agreement with Silicon Valley Bank and certain other banks named therein for a senior secured revolving loan facility in an aggregate principal amount not to exceed $100.0 million (the "Revolving Facility"). Borrowings under the Revolving Facility are secured by our tangible assets. Our borrowing capacity under the Revolving Facility is based on subscription revenue. The Revolving Facility has a maturity date of September 8, 2020, unless it is terminated by us or an event of default has occurred prior to such date. The Revolving Facility limits our and our subsidiaries' ability to, among other things: incur additional indebtedness; incur liens or guarantee obligations; pay dividends or make other distributions; make acquisitions and other investments; dispose of assets; and engage in transactions with affiliates except on an arms-length basis.

Any borrowings under the Revolving Facility may be drawn, at our option, as Eurodollar or Alternate Base Rate ("ABR") loans. ABR loans bear interest at a rate equal to the greatest of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) 3.00% , in each case plus a margin ranging from 0% to 0.50% . Eurodollar loans bear interest at a rate equal to an adjusted LIBOR rate plus a margin ranging from 3.00% to 3.50% . The margins on outstanding borrowings are determined based on our average daily usage of the Revolving Facility. In addition, we are obligated to pay an unused commitment fee and other fees.

We have the option to repay any borrowings under the Revolving Facility prior to maturity without penalty. The Revolving Facility contains customary representations and warranties that require us to comply with certain covenants, including financial covenants relating to our operating performance and liquidity. We were in compliance with these financial covenants as of February 1, 2019 .

We may also request, subject to certain conditions, increases in the commitments under the Revolving Facility in an aggregate amount of up to $50.0 million on the same maturity, pricing and other terms applicable to the then-existing commitments under the Revolving Facility. There can be no assurance that such increases will be available.

During the fiscal 2019 , we borrowed $15.0 million under the Revolving Facility, which was in addition to the $20.0 million that was already outstanding as of February 2, 2018 , and then repaid the total outstanding balance of $35.0 million on the Revolving Facility by April 2018. As of February 1, 2019 , no amounts were outstanding under the Revolving Facility.

9. Income Taxes

On December 22, 2017, the United States passed the law commonly known as the Tax Cuts and Jobs Act (the “TCJA” or “Tax Reform”). The legislation significantly changes U.S. tax law by, among other things, lowering corporate income tax rates, implementing a global tax system, imposing a transition tax on deemed repatriated earnings of foreign subsidiaries, and imposing a minimum tax on future foreign earnings. The TCJA permanently reduces the U.S. corporate income tax rate from a maximum of 35% to a flat 21% rate, effective for tax years beginning on or after January 1, 2018. We have recognized the revaluation of deferred tax assets and liabilities and included these amounts in our consolidated financial statements for fiscal 2018. No changes arose from the finalization of Tax Reform accounting during fiscal 2019.

On February 8, 2017, we signed a Tax Sharing Agreement (“TSA”) with Dell. The primary impact of the TSA was that we were compensated for our losses and credits to the extent they reduced the tax liability of the Dell group for U.S. federal and/or state tax purposes. TSA payments are reported as an increase to equity and do not impact our consolidated statements of operations. We received $35.0 million from Dell for our fiscal 2018 domestic losses and credits under the TSA. In addition, we are waiting on the finalization of regulations which give guidance regarding the calculation details for the TCJA changes. The final determination of our fiscal 2018 TSA payment is subject to the resolution of external dependencies and not related to the finalization of Staff Accounting Bulletin No. 118, Tax Accounting Implications of the Tax Cuts and Jobs Act. After the regulations are finalized, Dell will be responsible for making certain elections on behalf of the group which will affect the final TSA payment to us for fiscal 2018. The final payment we receive for fiscal 2018 may be material to us.

As a result of our IPO we are no longer included in the Dell federal tax return and our TSA benefit or expense will be limited to those states where we continue to file unitary returns. We received a payment of $9.3 million for our pre-IPO losses for fiscal 2019 . See Note 14 for further information.

The components of pre-tax loss for fiscal 2019 , fiscal 2018 and fiscal 2017 are as follows (in thousands):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
United States	$ (77,783)	$ (118,356)	$ (163,614)
International	(63,545)	(47,795)	(66,638)
Loss before income taxes	$ (141,328)	$ (166,151)	$ (230,252)

The provision for (benefit from) income taxes for fiscal 2019 , fiscal 2018 and fiscal 2017 consisted of the following (in thousands):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
Federal:			
Current	$ —	$ —	$ —
Deferred	—	(5,708)	1,208
Total	—	(5,708)	1,208
State:			
Current	43	32	47
Deferred	—	(537)	114
Total	43	(505)	161
Foreign:			
Current	783	4,300	1,353
Deferred	(256)	(724)	(108)
Total	527	3,576	1,245
Provision for (benefit from) income taxes	$ 570	$ (2,637)	$ 2,614

The fiscal year 2019 tax expense of $0.6 million was primarily due to foreign taxes in our profitable jurisdictions. The fiscal 2018 tax benefit of $2.6 million is the result of a one-time tax benefit of $7.4 million resulting from changes made by the TCJA partially offset by foreign taxes due in our profitable jurisdictions. The fiscal 2017 tax expense of $2.6 million was primarily due to foreign taxes due in profitable jurisdictions and U.S. federal deferred tax expense for the amortization of tax-deductible goodwill.

A reconciliation of our income tax provision (benefit) to the statutory federal tax rate is as follows (in thousands):

	Fiscal Year Ended (1)		
	February 1, 2019	February 2, 2018	February 3, 2017
Statutory federal tax rate	$ (29,679)	$ (56,043)	$ (80,588)
State taxes, net of federal taxes	(6,627)	(4,319)	(6,478)
Tax rate differential for international jurisdictions and other international-related tax items	16,767	14,187	13,846
U.S. tax credits	(5,222)	(2,174)	(3,486)
Stock-based compensation	(9,777)	499	455
Non-deductible expenses	1,744	1,947	2,846
Valuation allowance on current year activity	34,566	55,395	72,597
Removal of separate company basis assets / tax reform rate change	154,659	96,139	—
Release of valuation allowance on separate company basis assets / tax reform rate change	(154,659)	(96,139)	—
U.S. tax reform	—	(7,415)	—
Other	(1,202)	(4,714)	3,422
Provision for (benefit from) income taxes	$ 570	$ (2,637)	$ 2,614

(1) Certain prior period captions have been updated to conform to current year presentation.

The components of the noncurrent deferred tax assets and liabilities are as follows (in thousands):

	February 1, 2019	February 2, 2018
Deferred tax assets:		
Accrued expenses	$ 727	$ 3,052
Deferred revenue	9,142	9,157
Stock-based compensation	19,077	13,944
Credit carryforwards	12,408	16,863
Net operating losses	63,915	185,204
Gross deferred tax assets	105,269	228,220
Valuation allowance	(101,706)	(221,800)
Total deferred tax assets	3,563	6,420
Deferred tax liabilities:		
Property, plant and equipment, net	(669)	(654)
Intangible and other assets, net	(2,636)	(3,912)
Other liabilities, noncurrent	—	(1,818)
Total deferred tax liabilities	(3,305)	(6,384)
Net deferred tax (liabilities) assets	$ 258	$ 36

Our federal and international deferred tax assets and liabilities previously calculated on a separate return basis have been adjusted to reflect only the actual carryforward items which Pivotal has on its separate returns. As of February 2, 2018 , we had gross federal net operating loss carryforwards of $627.8 million which were removed in April due to the federal deconsolidation from Dell. We continue to present on a separate return basis the deferred tax assets and liabilities for those states where we file unitary returns with the Dell group. A full valuation allowance was recorded against the remaining U.S. federal, state and certain foreign deferred tax assets because we determined that it was more likely than not that those deferred tax assets would not be realized. Primary reliance was placed on our forecast of future operating losses supported by the lack of historical profits. As of February 1, 2019 , we have a net deferred tax asset of $0.3 million .

The valuation allowance decreased by $120.1 million for fiscal 2019 , primarily as a result of the removal of the loss carryforwards measured on a separate return basis and their related valuation allowance. For fiscal 2018 the valuation allowance decreased by $48.2 million , primarily due to a change in the effective U.S. tax rate from 35% to 21% as a result of the TCJA which reduced both our U.S. deferred tax assets and the related valuation allowance.

We have gross federal, state and foreign net operating loss carryforwards of $55.7 million , $449.7 million and $189.0 million , respectively, at February 1, 2019. If not utilized, the federal and state net operating loss carryforwards will begin to expire in 2033. The foreign net operating loss may be carried forward indefinitely. We have federal and state credit carryforwards of $3.9 million and $11.8 million , respectively, at February 1, 2019. Certain of these credit carryforwards will begin to expire in 2028 if not utilized, while others have an unlimited carryforward period.

Since inception we have incurred net losses in total internationally and we intend to continue investing in our international operations as needed.

The following table reflects changes in unrecognized tax benefits (in thousands):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
Gross amounts of unrecognized tax benefits as of the beginning of the period	$ 2,651	$ 1,686	$ 769
Increases related to prior period tax positions	316	600	1,000
Decreases related to prior period tax positions	(681)	—	(477)
Increases related to current period tax positions	553	365	394
Gross amounts of unrecognized tax benefits as of the end of the period	$ 2,839	$ 2,651	$ 1,686

We recorded $2.8 million , $2.7 million and $1.7 million of unrecognized tax benefits during fiscal 2019 , fiscal 2018 and fiscal 2017 , respectively. If recognized, these unrecognized tax benefits would have been recorded as a reduction to income tax expense partially offset by an increase in valuation allowance. Our policy is to recognize interest expense and penalties related to income tax matters in income tax expense and include accrued interest and penalties with the related income tax liability on our consolidated balance sheet. For the fiscal periods presented, interest and penalties were not material.

Our tax returns may be subject to audit, and we believe we have adequately provided for any future adjustments. All of our tax returns remain subject to assessment by the material tax jurisdictions in which we operate. Between our inception and our IPO, we were included in the Dell consolidated group for U.S. federal income tax purposes and various other consolidated, combined or unitary group returns of Dell and its subsidiaries, and therefore, we could be liable in the event that any income tax liability was incurred, but not paid, by any other member of such group.

10. Retirement Plan Benefits

Until January 1, 2018, we participated in a defined contribution savings plan under Section 401(k) of the Code offered by Dell (the “Dell 401(k) Plan”). Under the Dell 401(k) Plan, all of our U.S. based employees, subject to certain exceptions, were permitted to defer a portion of their annual compensation on a pre-tax basis. We were permitted to match pre-tax employee contributions up to 6% of eligible compensation during each pay period, subject to a $6,000 maximum match per year.

Beginning January 1, 2018, we now offer and manage our own defined contribution savings plan under Section 401(k) of the Code (the “401(k) Plan”). Participants in the Dell 401(k) Plan were allowed to rollover their plan assets into the 401(k) Plan. The 401(k) Plan is for certain employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. We match pre-tax employee contributions up to 6% of eligible compensation during each pay period, subject to a $5,000 maximum match per participant each year. Our matching contributions were $8.8 million , $9.3 million and $5.9 million in fiscal 2019 , fiscal 2018 and fiscal 2017 , respectively.

11. Redeemable Convertible Preferred Stock

Prior to the completion of the IPO in April 2018, all shares of Series A and C-1 redeemable convertible preferred stock then outstanding were converted into 110,466,653 shares of Class B common stock on a one -to-one basis. In addition, all shares of Series B and C redeemable convertible preferred stock then outstanding were converted into 37,412,396 shares of Class A common stock on a one -to-one basis. As of February 1, 2019 , there were no shares of redeemable convertible preferred stock issued and outstanding.

Prior to the conversion, the Series A, B, C and C-1 redeemable convertible preferred stock had deemed liquidation provisions which required the shares to be redeemed upon a change in control or other deemed liquidation event. The deemed liquidation preference provisions of the Series A, B, C and C-1 redeemable convertible preferred stock were considered contingent redemption provisions that were not solely within our control. Accordingly, the preferred stock were presented outside of permanent equity in the mezzanine portion of our consolidated balance sheet as of February 2, 2018.

12. Common Stock and Stock-Based Awards

As of February 1, 2019 , we had 4,500,000,000 shares of common stock authorized and 265,638,530 shares issued and outstanding. We have reserved shares of common stock, on an as-if converted basis, for future issuance as follows (in thousands):

	February 1, 2019	**February 2, 2018**
Conversion of Series A, B, C, C-1 preferred stock	—	147,879
Options	45,901	54,388
RSUs	9,501	—
Remaining shares available for issuance under the Employee Stock Purchase Plans	2,065	—
Remaining shares available for issuance under the 2018 and 2013 Plans	11,994	8,019
Total shares of common stock reserved	69,461	210,286

The rights of the holders of the Class A common stock and Class B common stock are identical, except with respect to voting and conversion. Holders of Class A common stock are entitled to one vote per share, and holders of Class B common stock are entitled to ten votes per share.

Equity Incentive Plans

The Company has two equity incentive plans: the Pivotal Software, Inc. Amended and Restated 2013 Stock Plan (the "2013 Equity Plan") and the Pivotal Software, Inc. 2018 Equity Incentive Plan (the "2018 Equity Plan"). Upon the completion of the Company's IPO in April 2018, the Company ceased granting equity under the 2013 Equity Plan, and all shares that remained available for future issuance under the 2013 Equity Plan at that time were transferred to the 2018 Equity Plan.

Stock Options

Stock options granted to employees generally vest over 48 months as follows: (i) 25% vest 12 months from the date of grant and (ii) the remaining 75% vest on a monthly basis over the remaining term. Stock-based compensation expense related to non-employee stock awards was immaterial during the periods presented. The fair value of each stock option granted to employees during fiscal 2019 , fiscal 2018 and fiscal 2017 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions and resulting option values:

	Fiscal Year Ended					
	February 1, 2019		February 2, 2018		February 3, 2017	
Risk-free interest rate		2.81%		2.00%		1.43%
Expected dividends		—%		—%		—%
Expected volatility		33.43%		34.26%		36.64%
Expected term (in years)		6.08		6.08		6.08
Fair value of options granted	$	5.23	$	3.58	$	3.20

The following table summarizes the stock option activity and related information (in thousands, except per share amounts):

	Number of Shares Subject to Options	Weighted Average Exercise Price		Aggregate Intrinsic Value		Weighted Average Remaining Contractual Life (Years)
Options outstanding at January 29, 2016	36,976	$	6.30	$	53,946	8.67
Granted	8,032	$	8.45			
Exercised	(984)	$	5.44	$	2,709	
Forfeited	(3,781)	$	6.82			
Expired / canceled	(882)	$	5.70			
Options outstanding at February 3, 2017	39,361	$	6.72	$	73,328	7.82
Granted	20,323	$	9.73			
Exercised	(1,626)	$	5.99	$	5,467	
Forfeited	(2,380)	$	8.13			
Expired / canceled	(1,290)	$	6.24			
Options outstanding at February 2, 2018	54,388	$	7.82	$	132,971	7.83
Granted	2,832	$	14.03			
Exercised	(9,018)	$	6.89	$	96,895	
Forfeited	(2,028)	$	9.35			
Expired / canceled	(273)	$	7.02			
Options outstanding at February 1, 2019	45,901	$	8.31	$	469,014	7.16
Vested and expected to vest as of February 1, 2019	44,816	$	8.27	$	459,661	7.03

As of February 1, 2019 , total gross unrecognized compensation cost related to unvested stock options was approximately $62.2 million . The weighted-average remaining vesting period of unvested stock options at February 1, 2019 was 2.29 years.

The following table summarizes information about exercisable stock options at each period ended (shares in thousands, except per share amounts):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
Weighted average exercise price	$ 7.22	$ 6.40	$ 5.98
Number of shares subject to options	27,826	24,137	18,498
Weighted average remaining contractual life (years)	6.42	6.51	6.90

Restricted Stock Units

Restricted Stock Units ("RSUs") were first awarded under the 2018 Equity Incentive Plan and generally vest over four years . The vesting is contingent on the employees' continued service through such date. RSUs are generally subject to forfeiture if employment terminates prior to the vesting date. We expense the cost of the RSUs, which is determined to be the fair market value of the shares of common stock underlying the RSUs on the date of grant, ratably over the period during which the vesting restrictions lapse.

We granted 9.9 million RSUs with an aggregate fair value of $ 155.5 million , of which all are substantially unvested and outstanding as of February 1, 2019 . The following table reflects our RSU activity during the year ended February 1, 2019 (in thousands, except per share amounts):

	Number of Restricted Stock	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value
RSU outstanding at February 2, 2018	—	$ —	
Granted	8,388	$ 15.00	
Forfeited	—	$ —	
RSUs outstanding at May 4, 2018	8,388	$ 15.00	$ 153,512
Granted	267	$ 27.84	
Forfeited	(58)	$ 15.00	
RSUs outstanding at August 3, 2018	8,597	$ 15.40	$ 202,633
Granted	642	$ 19.49	
Forfeited	(119)	$ 15.95	
RSUs outstanding at November 2, 2018	9,120	$ 15.68	$ 176,106
Granted	556	$ 17.55	
Forfeited	(175)	$ 16.54	
RSU outstanding at February 1, 2019	9,501	$ 15.77	$ 175,491

For fiscal 2019 , the stock-based compensation expense associated with RSUs was $28.1 million . As of February 1, 2019 the total gross unrecognized compensation cost related to unvested RSUs was approximately $121.2 million . The weighted-average remaining vesting period of unvested RSUs at February 1, 2019 was 3.2 years .

Employee Stock Purchase Plan

Our Employee Stock Purchase Plan (the "ESPP") became effective upon our IPO. The ESPP initially reserved and authorized the issuance of up to a total of 2.8 million shares of Class A common stock to participating employees. Eligible employees may elect to participate in the ESPP, upon which the employee authorizes payroll deductions during the offering period in an amount equal to at least 1% of his or her compensation, but not more than the contribution limit. The contribution limit for each offering period is the lesser of (i) 15% of an eligible employee's compensation for the offering period or (ii) $7,500 . Except for the initial offering period, the ESPP provides for 6 -month offering periods commencing on January 11 or July 11 and ending on July 10 or January 10 of each year. On each purchase date, eligible employees will purchase the shares at a price per share equal to 85% of the lesser of (1) the fair market value of our stock on the offering date or (2) the fair market value of our stock on the purchase date.

The initial offering period under the ESPP commenced on April 20, 2018 and ended on January 10, 2019. We estimated the fair value of ESPP purchase rights using a Black-Scholes option pricing model with the following assumptions:

	February 1, 2019
Risk-free interest rate	2.10%
Expected dividends	—
Expected volatility	29.88%
Expected term (in years)	0.75

During the year ended February 1, 2019 , we sold 0.7 million shares of our Class A Common stock under the ESPP. The shares were purchased at a weighted-average purchase price of $12.75 with proceeds of $9.4 million .

The stock-based compensation expense associated with the ESPP was $3.2 million for fiscal 2019 . As of February 1, 2019 , there was $2.8 million of unrecognized stock-based compensation expense related to the ESPP that is expected to be recognized over an average remaining vesting period of 0.4 years .

Stock-Based Compensation Expense

The following tables summarize the components of total stock-based compensation expense included in our consolidated statements of operations for each period ended (in thousands):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
		(in thousands)	
Cost of revenue – subscription	$ 1,469	$ 520	$ 1,274
Cost of revenue – services	14,962	6,548	6,184
Sales and marketing	21,082	8,619	7,971
Research and development	19,497	7,833	7,290
General and administrative	12,023	5,109	6,132
Total stock-based compensation expense	$ 69,033	$ 28,629	$ 28,851

No stock-based compensation was capitalized in fiscal 2019, fiscal 2018 and fiscal 2017.

The expense related to awards previously granted by Dell and VMware to certain of our employees was $1.2 million , $0.3 million and $5.5 million for fiscal 2019 , fiscal 2018 and fiscal 2017 respectively.

13. Net Loss per Share

Basic loss per share is based on the weighted-average effect of all common shares issued and outstanding and is calculated by dividing net loss attributable to common stockholders by the weighted-average shares outstanding during the period.

Basic and diluted net loss per share

The following table sets forth basic and diluted earnings (loss) per share for each of the periods presented (in thousands, except per share amounts):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
Numerator:			
Net loss attributable to common stockholders	$ (141,903)	$ (163,515)	$ (232,537)
Denominator:			
Weighted average shares used in computing net loss per share attributable to common stockholders, basic and diluted	221,149	68,574	67,337
Net loss per share attributable to common stockholders, basic and diluted	$ (0.64)	$ (2.38)	$ (3.45)

Since we were in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods as the inclusion of all potential common shares outstanding would have been anti-dilutive. Potentially dilutive securities that were not included in the diluted per share calculations because they would be anti-dilutive were as follows (in thousands):

	Fiscal Year Ended		
	February 1, 2019	February 2, 2018	February 3, 2017
Shares subject to outstanding common stock options	45,901	54,388	39,361
Unvested RSUs issued and outstanding	9,501	—	—
Shares committed under the ESPP	708	—	—
Conversion of convertible preferred stock	—	147,879	147,879
Total	56,110	202,267	187,240

14. Related Party Transactions

Dell and VMware Agency Arrangements

Dell and VMware, are our customers. Since our formation, we have also entered into agency arrangements with Dell and VMware that enable our sales team to sell our subscriptions and services leveraging the Dell and VMware enterprise relationships and end customer contracts. These transactions result in Dell or VMware invoicing customers and collecting on our behalf. In exchange, we pay an agency fee, which is based on a percentage of the invoiced contract amounts, for their services. Such percentage ranged from 1.5% to 10% during fiscal 2019 , fiscal 2018 and fiscal 2017 .

In fiscal 2018 , we amended our agency agreement with VMware. For transactions under this amendment, we are entitled to receive the full invoiced amount from customers, and therefore revenue is recognized on a gross basis. We paid VMware $3.7 million and $1.4 million in fiscal 2019 and fiscal 2018 , which was deferred and amortized to sales and marketing expense over the term of the underlying customer arrangements.

In fiscal 2017 , we amended our agency agreement with Dell. For transactions under this amendment, we are entitled to receive the full invoiced amount from customers, and therefore revenue is recognized on a gross basis. We paid Dell $11.7 million , $6.9 million and $6.4 million in fiscal 2019 , fiscal 2018 and fiscal 2017 , respectively, which was deferred and amortized to sales and marketing expense over the term of the underlying customer arrangements.

In addition to the amounts recorded in accounts receivable pertaining to the agency agreements and as a customer, there are other amounts recorded in Due from Parent on the consolidated balance sheet for those items not related to trade receivables. In fiscal 2018 , the amount recorded in Due from Parent on the consolidated balance sheet is primarily related to the amounts we expect to receive from Dell for the remaining fiscal 2018 TSA payment. In fiscal 2019 and 2018 , we received $35.0 and $36.1 million respectively, for TSA payments related to fiscal 2018 and fiscal 2017 , which represents the majority of the amount reflected in contributions from Dell on the consolidated statements of cash flows.

Revenue from sales to Dell as a customer for fiscal 2019 , fiscal 2018 and fiscal 2017 , was $18.9 million , $12.2 million and $8.9 million , respectively. Revenue from sales to VMware as a customer, substantially, for fiscal 2019 , fiscal 2018 and fiscal 2017 were $1.4 million , $2.1 million and $8.2 million , respectively.

Revenue recognized through such agency arrangements represented 36% , 37% and 44% of total revenue in fiscal 2019 , fiscal 2018 and fiscal 2017 , respectively.

Dell and VMware Shared Services and Employee Matters Agreements

We engage in several ongoing related party transactions which resulted in costs to us. Dell acts as a paying agent for certain of our expenses including payments to vendors and other expenses such as certain international payroll.

Pursuant to ongoing shared services and employee matters agreements, we are charged by Dell and VMware for certain management and administrative services, including routine management, administration, finance and accounting, legal and human resources services based upon estimates and allocations. Additionally, in certain geographic regions where we do not have an established legal entity, we contract with Dell subsidiaries for support services. We are charged for overhead items such as facilities and IT systems for our employees that work from Dell and VMware office locations. The costs incurred by Dell on our behalf related to these employees are charged to us with a markup. These costs are included as expenses in our consolidated statements of operations and primarily include salaries, benefits, travel and rent.

These expenses are charged to us on the basis of direct usage when identifiable, with the remainder charged primarily on the basis of headcount or other measures. Management believes the basis on which the expenses have been allocated to be a reasonable reflection of the utilization of services provided to or the benefit received by us during the periods presented. Actual costs that would have been incurred if the Company had operated as a stand-alone public company during the periods presented would depend on multiple factors, including organizational structure and strategic decisions made in various areas, including human resources, payroll, legal, finance, procurement and information technology and infrastructure, among others. These activities, as they relate to VMware, are recorded as Due to Parent on the consolidated balance sheets.

In fiscal 2017 , $400.0 million of the net payable due to Dell was settled through the issuance of preferred stock in connection with the Financing, with the remainder of the net payable due to Dell balance settled on a cash basis. All subsequent payment activities are recorded as Due to Parent on the consolidated balance sheet and have generally been settled on a quarterly basis. The activity is recorded within the net payable due to Dell and the Due to Parent financial statement line item at fiscal 2019 and fiscal 2018 .

Information about our costs from such arrangements with Dell and VMware consisted of the following (in thousands):

	Fiscal Year Ended					
	February 1, 2019		February 2, 2018		February 3, 2017	
	Dell	VMware	Dell	VMware	Dell	VMware
Paying agent	$ 10,550	$ —	$ 56,892	$ —	$ 154,225	$ —
Shared services and other expenses	18,655	253	24,809	196	151,304	1,235
Total	$ 29,205	$ 253	$ 81,701	$ 196	$ 305,529	$ 1,235

Other Related Party Transactions

Through September 6, 2018, certain of our directors were also executives of companies that are our customers. Subsequent to this date, only the director from Ford Motor Company remains an executive of a company that is our customer.

Revenue recognized from sales of subscriptions and services to General Electric Company during the period in which it was a related party was $6.8 million for fiscal 2019 , $11.0 million for fiscal 2018 and $10.8 million for fiscal 2017 . We had outstanding accounts receivable balances from General Electric Company of $4.2 million as of February 2, 2018 .

Revenue recognized from sales of subscriptions and services to Ford Motor Company was $11.5 million for fiscal 2019 , $31.3 million for fiscal 2018 , and $32.0 million for fiscal 2017 . We had outstanding accounts receivable balances from Ford Motor Company of $1.8 million as of February 1, 2019 and $3.2 million as of February 2, 2018 , respectively.

15. Commitments and Contingencies

Operating Lease Commitments

We lease office and equipment under various non-cancelable operating leases, which generally contain renewal options and escalation clauses and expire through fiscal 2031. Rent expense for fiscal 2019 , fiscal 2018 and fiscal 2017 was $22.7 million , $24.4 million and $18.2 million , respectively.

Minimum commitments under non-cancelable operating lease agreements, net of sublease income, as of February 1, 2019 are as follows (in thousands):

Fiscal year	Amount
2020	$ 23,176
2021	24,973
2022	27,048
2023	24,058
2024	22,083
Thereafter	61,522
Total minimum lease payments	$ 182,860

Purchase Obligations and Commitments

In the normal course of business we make commitments with various parties for purchases of products and services. As of February 1, 2019 , we had $7.6 million in outstanding non-cancelable purchase obligations.

Litigation

From time to time, we are involved in legal proceedings and subject to claims arising in the ordinary course of our business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the resolution of these ordinary course matters will not have a material adverse effect on our business, operating results, financial condition or cash flows. Even if any particular litigation is not resolved in a manner that is adverse to our interests, such litigation can have a negative impact on us because of defense and settlement costs, diversion of management resources from our business and other factors.

Warranties and Indemnification

Our software is generally warranted to perform substantially in accordance with the subscription agreement. Our contracts generally include provisions for indemnifying customers against liabilities if our services infringe or misappropriate a third party's intellectual property rights. Costs and liabilities incurred as a result of warranties and indemnification obligations were not material during the periods presented and no liability has been recognized relating to these obligations.

16. Segment and Geographic Information

The following table summarizes revenue by geography based on the sold-to location of our customers that purchase subscriptions and services (dollars in thousands):

	Fiscal Year Ended					
	February 1, 2019		February 2, 2018		February 3, 2017	
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Amount	Percentage of Revenue
	(In thousands)					
United States	$ 506,309	77%	$ 394,418	77%	$ 325,407	78%
International	151,185	23%	115,018	23%	90,860	22%
	$ 657,494	100%	$ 509,436	100%	$ 416,267	100%

No country other than the United States represented 10% or more of our total revenue in fiscal 2019 , fiscal 2018 or fiscal 2017 .

As of fiscal 2019 and fiscal 2018 , 11% and 14% , respectively, of our long-lived assets resided in the United Kingdom as a result of our leasehold improvements in this country.

ITEM 9. CHANGES AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of 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 such evaluation, our principal executive officer and principal financial officer have concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable assurance level.

Management's 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.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this Annual Report on Form 10-K that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, do not expect that our disclosure controls or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item is incorporated by reference from our definitive proxy statement for the Annual Meeting of Stockholders to be held in 2019 to be filed pursuant to Regulation 14A.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from our definitive proxy statement for the Annual Meeting of Stockholders to be held in 2019 to be filed pursuant to Regulation 14A.

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

The information required by this item is incorporated by reference from our definitive proxy statement for the Annual Meeting of Stockholders to be held in 2019 to be filed pursuant to Regulation 14A.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from our definitive proxy statement for the Annual Meeting of Stockholders to be held in 2019 to be filed pursuant to Regulation 14A.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference from our definitive proxy statement for the Annual Meeting of Stockholders to be held in 2019 to be filed pursuant to Regulation 14A.

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

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by reference Form	File No.	Exhibit	Filing Date
3.1	Form of Amended and Restated Certificate of Incorporation of Pivotal Software, Inc.	S-1/A	333-223872	3.1	4/12/2018
3.2	Form of Amended and Restated Bylaws of Pivotal Software, Inc.	S-1/A	333-223872	3.2	4/12/2018
4.1	Form of Class A Common Stock Certificate	S-1/A	333-223872	4.1	4/12/2018
10.1	Form of Amended and Restated Shareholders' Agreement	S-1/A	333-223872	10.1	4/12/2018
10.2+	Amended and Restated 2013 Stock Plan of Pivotal Software, Inc.	S-1	333-223872	10.2	3/23/2018
10.3+	Form of Non-Qualified Stock Option Agreement pursuant to the Pivotal Software, Inc. 2013 Stock Plan	S-1	333-223872	10.3	3/23/2018
10.4+	Form of Indemnification Agreement, between Pivotal Software, Inc. and its directors and executive officers	S-1/A	333-223872	10.4	4/9/2018
10.5+	Form of Change in Control Severance Agreement, between Pivotal Software, Inc. and its executive officers, as currently in effect	S-1	333-223872	10.5	3/23/2018
10.6	Form of Amended and Restated Agent Agreement, between Pivotal Software, Inc. and EMC Corporation	S-1/A	333-223872	10.6	4/9/2018
10.7	Third Restated Agency Agreement, between Pivotal Software, Inc. and VMware, Inc., dated March 20, 2018	S-1/A	333-223872	10.7	4/9/2018
10.8+	Fiscal Year 2018 Executive Incentive Program of Pivotal Software, Inc.	S-1/A	333-223872	10.8	4/9/2018
10.9	Tax Sharing Agreement between Pivotal Software, Inc., Dell Technologies Inc., EMC Corporation and their respective affiliates, dated February 8, 2017	S-1	333-223872	10.9	3/23/2018
10.10	Form of Master Transaction Agreement between Pivotal Software, Inc. and Dell Technologies Inc.	S-1/A	333-223872	10.10	4/12/2018
10.11	Form of Shared Services Agreement between Pivotal Software, Inc. and Dell Inc.	S-1/A	333-223872	10.11	4/12/2018
10.12	Form of Employee Matters Agreement between Pivotal Software, Inc., VMware, Inc. and Dell Inc.	S-1/A	333-223872	10.12	4/12/2018
10.13+	2018 Equity Incentive Plan of Pivotal Software, Inc.	S-1/A	333-223872	10.13	4/9/2018
10.14+	Form of Restricted Stock Unit Agreement for U.S. Participants pursuant to the 2018 Equity Incentive Plan of Pivotal Software, Inc.	S-1/A	333-223872	10.14	4/12/2018
10.15+	Form of Non-Qualified Stock Option Agreement for U.S. Participants pursuant to the 2018 Equity Incentive Plan of Pivotal Software, Inc.	S-1/A	333-223872	10.15	4/12/2018
10.16+	Employee Stock Purchase Plan of Pivotal Software, Inc.	S-1/A	333-223872	10.16	4/9/2018
10.17+	Director Compensation Policy of Pivotal Software, Inc.	S-1/A	333-223872	10.17	4/9/2018
21.1*	Subsidiaries of Pivotal Software, Inc.				
23.1*	Consent of PricewaterhouseCoopers, Independent Registered Public Accounting Firm				
31.1*	Rule 13a—14(a) / 15d—14(a) Certifications—Chief Executive Officer				
31.2*	Rule 13a—14(a) / 15d—14(a) Certifications—Chief Financial Officer				
32.1ǂ	Section 1350 Certifications—Chief Executive Officer				
32.2ǂ	Section 1350 Certifications—Chief Financial Officer				
101.INS*	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				
101.SCH*	XBRL Taxonomy Extension Schema Document				
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document				

+ Indicates management contract or compensatory plan or arrangement
* Filed herewith
ǂ Furnished herewith

Item 16. Form 10-K Summary

None

SIGNATURES

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

Dated: March 29, 2019

PIVOTAL SOFTWARE, INC.

By: /s/ ROBERT MEE
Name: Robert Mee
Title: *Chief Executive Officer*

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Robert Mee, Cynthia Gaylor and Andrew M. Cohen, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ ROBERT MEE Robert Mee	Chief Executive Officer and Director (Principal Executive Officer)	March 29, 2019
/s/ CYNTHIA GAYLOR Cynthia Gaylor	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 29, 2019
/s/ PAUL MARITZ Paul Maritz	Chairman of the Board	March 29, 2019
/s/ MICHAEL S. DELL Michael S. Dell	Director	March 29, 2019
/s/ ZANE ROWE Zane Rowe	Director	March 29, 2019
/s/ EGON DURBAN Egon Durban	Director	March 29, 2019
/s/ WILLIAM D. GREEN William D. Green	Director	March 29, 2019
/s/ MARCY S. KLEVORN Marcy S. Klevorn	Director	March 29, 2019
/s/ MADELYN J. LANKTON Madelyn J. Lankton	Director	March 29, 2019

Exhibit 21.1

SIGNIFICANT SUBSIDIARIES OF PIVOTAL SOFTWARE, INC.

Name of Subsidiary	Jurisdiction of Organization
Pivotal Group 1 Limited	Bermuda
Pivotal Software International	Ireland
Pivotal Software International Holdings	Ireland

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-224355) of Pivotal Software, Inc. of our report dated March 29, 2019 relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
March 29, 2019

Exhibit 31.1

CERTIFICATION UNDER SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Robert Mee, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pivotal Software, 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: March 29, 2019

/s/ Robert Mee
Robert Mee
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION UNDER SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Cynthia Gaylor, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pivotal Software, 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: March 29, 2019

/s/ Cynthia Gaylor

Cynthia Gaylor
Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 32.1

CERTIFICATION UNDER SECTION 906 OF THE

SARBANES-OXLEY ACT OF 2002

I, Robert Mee, Chief Executive Officer of Pivotal Software, 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 February 1, 2019 (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: March 29, 2019

/s/ Robert Mee

Robert Mee
Chief Executive Officer
(Principal Executive Officer)

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

Exhibit 32.2

CERTIFICATION UNDER SECTION 906 OF THE

SARBANES-OXLEY ACT OF 2002

I, Cynthia Gaylor, Chief Financial Officer of Pivotal Software, 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 February 1, 2019 (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: March 29, 2019

/s/ Cynthia Gaylor

Cynthia Gaylor
Chief Financial Officer
(Principal Accounting and Financial Officer)

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