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

FORM 10-K

(Mark One)

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

For the fiscal year ended January 31, 2021

OR

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

Commission File Number 001-37570

Pure Storage, Inc.
(Exact Name of Registrant as Specified in its Charter)

Delaware	**27-1069557**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

650 Castro Street, Suite 400
Mountain View, California 94041
(Address of principal executive offices, including zip code)
(800) 379-7873
(Registrant's telephone number, including area code)

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

Title of each class	Trading symbol	Name of each exchange on which registered
Class A Common Stock, par value $0.0001 per share	PSTG	New York Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒
Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 (Exchange Act) during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the 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	☐	Small reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not 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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒
The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of August 2, 2020, the last business day of the registrant's most recently completed second quarter, was approximately $4.4 billion based upon the closing price reported for such date by the New York Stock Exchange. Shares of the registrant's Class A common stock held by each executive officer, director and holder of 10% or more of the outstanding Class A common stock have been excluded from this calculation because such persons may be deemed affiliates. This determination of executive officer or affiliate status is not necessarily a conclusive determination for any other purpose.
As of March 18, 2021, the registrant had 280,335,794 shares of Class A common stock outstanding.

Documents Incorporated by Reference

Portions of the registrant's proxy statement for its 2021 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended January 31, 2021.

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NOTE ABOUT FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act), about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations and financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, forward-looking statements may be identified by words such as “anticipate,” “believe,” “continue,” “could,” “design,” “estimate,” “expect,” “intend,” “may,” “plan,” “potentially,” “predict,” “project,” “should,” “will” or the negative of these terms or other similar expressions.

Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements regarding our ability to sustain or manage our growth and profitability, our expectations regarding demand for our products and services and trends in the external storage market, our expectations that sales prices may decrease or fluctuate over time, our plans to expand and continue to invest internationally, our plans to continue investing in marketing, sales, support and research and development, our ability to grow sales with new and existing customers, our shift to subscription services, including as-a-Service offerings, our expectations regarding fluctuations in our revenue and operating results, our expectations that we may continue to experience losses despite revenue growth, our ability to successfully attract, motivate, and retain qualified personnel and maintain our culture, our expectations regarding our technological leadership and market opportunity, our ability to realize benefits from our investments, including development efforts and acquisitions, our ability to innovate and introduce new or enhanced products, our expectations regarding product acceptance and our technologies, products and solutions, our competitive position and the effects of competition and industry dynamics, including alternative offerings from incumbent, emerging and public cloud vendors, our expectations concerning relationships with third parties, including our partners, customers and contract manufacturers, the benefits of the Portworx acquisition and technology, the adequacy of our intellectual property rights, expectations concerning potential legal proceedings and related costs, the impact of adverse economic conditions and the duration and scope of the COVID-19 pandemic and related "shelter-in-place" orders and other measures and its impact on our business, operating results, cash flows and/or financial condition.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, and financial needs. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled “Risk Factors.” These risks are not exhaustive. Other sections of this report include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ from those contained in, or implied by, any forward-looking statements.

Investors should not rely upon forward-looking statements as predictions of future events. We cannot assure investors that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report or to conform these statements to actual results or to changes in our expectations. Investors should read this Annual Report on Form 10-K and the documents that we reference in this Annual Report on Form 10-K and have filed as exhibits to this report with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

WHERE INVESTORS CAN FIND MORE INFORMATION

Investors should note that we announce material financial information to our investors using our investor relations website, press releases, Securities and Exchange Commission (SEC) filings and public conference calls and webcasts. We also use the following social media channels as a means of disclosing information about the company, our products, our planned financial and other announcements and attendance at upcoming investor and industry conferences, and other matters and for complying with our disclosure obligations under Regulation FD:

Pure Storage Twitter Account (twitter.com/PureStorage)

Pure Storage Company Blog (blog.purestorage.com)

Pure Storage Facebook Page (facebook.com/PureStorage)

Pure Storage LinkedIn Page (linkedin.com/company/pure-storage)

The information we post through these social media channels may be deemed material. Accordingly, investors should monitor these accounts and our company blog, in addition to following our press releases, public conference calls and webcasts, and filings with the SEC. This list may be updated from time to time. The information we post through these channels is not a part of this Annual Report on Form 10-K. These channels may be updated from time to time on Pure Storage's investor relations website.

PART I

Item 1. Business.

Overview

Data is foundational to our customers' digital transformation and we are focused on delivering innovative and disruptive technology and data storage solutions that enable customers to maximize the value of their data. In our first decade, we completely changed customers' expectations of what they should see from storage arrays and storage vendors, making flash storage widely available to enterprise organizations and revolutionizing the customer experience with our *Evergreen Storage* subscription model that radically simplified and reduced total cost of storage ownership. Today, we are changing the expectations for data and storage management by providing customers a cloud experience with flexible on-demand data services consumption through delivery of a *Modern Data Experience* that empowers organizations to run their operations as a true, automated, storage as-a-service model seamlessly across multiple clouds.

Our solutions support a wide range of structured and unstructured data, at scale and across any data workloads on-premise, in the cloud, or hybrid environments, and include mission-critical production, test/development, analytics, disaster recovery, and backup/recovery.

Our *Modern Data Experience* vision begins with our portfolio of products and subscription services that is transforming and modernizing storage operations for our customers. Our *Modern Data Experience* vision extends to an innovative and highly-integrated data platform of products and subscription services, consisting of *Cloud Data Infrastructure* (integrated hardware and software appliances which run in on-premise data centers), *Cloud Data Services* (software services which run natively in major public cloud infrastructures), and *Cloud Data Management* (software hosted data management services to manage our entire platform). The *Modern Data Experience* is based on four key pillars: Fast Matters, Cloud Everywhere, Simple is Smart, and Subscription to Innovation.

Fast Matters - Speed is critical to customer experience and engagement, and therefore, we design our high-performance solutions to allow applications, analytics, and development to move and execute quickly in order for our customers to make impactful decisions. We redefine fast by delivering low-latency, high bandwidth, and maximum density technologies. For example, accelerating core applications enables rapid response and deployment which reduces costs while increasing enterprise resilience.

Cloud Everywhere - Providing our customers the opportunity to transform their data management to a full or hybrid cloud model. This model reduces costs and adds agility through an API-defined platform, a consistent on-premise and public cloud experience, seamless data mobility and comprehensive data protection. This multi-cloud environment delivers increased flexibility, fast global recovery, and minimized application downtime through automated response.

Simple is Smart - From day one, our storage solutions are designed to be simple, allowing our customers to reduce time spent managing the storage platform including issue resolution. Our storage dashboards present real-time and intuitive platform analytics; meanwhile, AI-based optimization proactively analyzes future workloads and global network issues to limit unforeseen infrastructure problems.

Subscription to Innovation - Delivering a subscription with low total cost of ownership, eliminating the need for forklift hardware replacements, and providing customizable capacity and mobility, whether on-premise, in the cloud or hybrid cloud.

Portworx Acquisition

In October 2020, we expanded our data services capabilities for containerized, cloud-native applications with the acquisition of Portworx Inc. (Portworx), a privately-held container storage company that provides a Kubernetes data services platform. Cloud-native databases, analytics applications and artificial intelligence (AI) frameworks, such as Cassandra, MongoDB, Postgres, Kafka, Elasticsearch, Spark, and Tensorflow, are the tools upon which customers build their modern data pipelines. By integrating Portworx container data services, which includes storage, data protection, data security and disaster recovery/backup, with our data platforms, this acquisition further enhances our *Modern Data Experience* by expanding our support for these cloud-native applications on any infrastructure, on-premise or in the cloud environment at any scale.

Products and Subscription Services

We generate the majority of our revenues from our *Cloud Data Infrastructure* products and our *Cloud Data Services* and *Cloud Data Management* subscriptions which primarily include our *Evergreen Storage* subscription, *Pure as-a-Service (PaaS)*, and *Cloud Block Store.*

Products

Our *Cloud Data Infrastructure* consists of deeply-integrated storage hardware and software solutions that enable cloud providers, enterprises, and governments to operate their global data infrastructure in the cloud. These solutions were built to be optimized for solid-state memory instead of the historical spinning hard drive media and achieve superior levels of performance and simplicity by deeply co-designing hardware, software, and cloud connectivity to create fully-integrated storage appliances.

Our *Cloud Data Infrastructure* products include *FlashArray* and *FlashBlade* integrated appliances, which incorporate our proprietary *Purity Operating Environment (Purity OE)* software, as described below.

Purity Operating Environment Software

The heart of our data platform is our proprietary *Purity OE* software that implements enterprise-class storage services such as data reduction, encryption and data protection, as well as protocol services such as block, file and object. Variants of *Purity OE* have been optimized for both our *FlashArray* and *FlashBlade* platforms. Our *Purity OE* software delivers the most granular and complete data reduction, which powers industry-leading total efficiency across a wide range of use cases and data types. Our software implements strong data-at-rest encryption of all data and is designed to maintain performance through failures. It also enables our arrays to be easily upgraded without scheduled downtime, setting new expectations for storage resilience. With our *DirectFlash* architecture, recent versions of *Purity OE* have been optimized to speak directly to raw NAND Flash, enabling us to overcome the inefficiencies of prior commodity SSD architectures.

FlashArray

FlashArray is our solution for running block-oriented storage, typically deployed for database, application, and virtual machine workloads. *FlashArray* was the industry’s first all-flash array and has helped drive the industry-wide transition from disk to flash. *FlashArray* is available in two varieties, *FlashArray//X (//X)*, optimized for the highest performance Tier1 workloads, leveraging 3D TLC flash and Storage Class Memory (*SCM*), and *FlashArray//C (//C)*, for capacity Tier2 workloads, optimized for the adoption of lower-cost QLC flash memory. These products both run the *Purity//FA* software, which has been fully-optimized for the unique characteristics of flash memory and offers both consistency and interoperability of data between *//X* and *//C*. *FlashArray* has a history of driving innovation in the all-flash array market, including in recent years, pioneering adoption of latest technologies such as NVMe, NVMe-oF, and QLC flash.

FlashBlade

FlashBlade is our solution for unified fast file and object storage, typically deployed for “big data" applications such as real-time analytics, AI, log analytics, and data protection and recovery workloads. *FlashBlade* was the industry’s first all-flash array optimized for big data workloads and enables all-flash hardware to scale to multi-Petabyte scale deployments. *FlashBlade* is a scale-out system running the *Purity//FB* software and includes integrated software-defined networking to deliver revolutionary performance and simplicity. *FlashBlade*’s large scale and multiple protocols allows it to be deployed as a Data Hub, enabling customers to consolidate big data analytics, application development, webscale cloud applications, and backup and recovery workloads, delivering all-flash performance in a cost-effective manner.

FlashBlade is the industry's most advanced storage for unstructured data, consolidating complex data silos to optimize infrastructure and accelerate tomorrow's discoveries and insights.

FlashStack and AIRI

We also offer two all-flash converged infrastructure solutions, *FlashStack* and *AIRI* (*AI-Ready Infrastructure*). *FlashStack*, a joint solution with Cisco, bundles *FlashArray* and *FlashBlade* with Cisco UCS Servers and Networking to deliver a complete full-stack solution. *AIRI*, a joint solution with Nvidia, combines *FlashBlade* with Nvidia DGX AI Servers to create a turnkey infrastructure for artificial intelligence workloads.

Subscription Services

Our innovative subscription services deliver a full range of services to meet the IT and data needs for our customers and primarily include our *Evergreen Storage* subscription, *PaaS*, and *Cloud Block Store.*

Evergreen Storage Subscription and Pure1

Our *Evergreen Storage* subscription is often sold together with our *Cloud Data Infrastructure* solutions and significantly extends the life of our solutions. Our *Evergreen Storage* subscription eliminates disruptive data migrations and downtime through software upgrades and updates, onsite technical support, and the option of receiving hardware upgrades. This subscription includes *Pure1,* which is a cloud-based management and support offering that enables our customers, our support staff, and our partners to seamlessly and securely collaborate to maximize the reliability of our platform while minimizing management overhead and cost to the customer. This cloud-based platform removes the need for dedicated storage management infrastructure, enabling customers to monitor global storage operations from a mobile device and simplifying integration with other data center management solutions. *Pure1*'s *Global Insight* technology also employs cutting-edge, real-time analytics and machine learning technologies to predictively identify potential issues enabling our support organization to proactively resolve incidents before they arise - leading to higher uptime and availability for our data platform. *Pure1 META* also enables customers to predict and receive intelligent advice on workload, interaction, and capacity performance.

Pure as-a-Service

PaaS enables customers to subscribe to defined services for their storage needs based on performance and capacity whether on-premise or in the public cloud. *PaaS* utilizes our *Cloud Data Infrastructure* and software technology, providing the customer with flexibility in how they consume and pay for their work-load needs. This includes enabling a customer to move their workloads between on-premise and cloud environments using our *Cloud Block Store* technology. *PaaS* includes a Service Catalog aimed at revolutionizing the industry by publishing transparent pricing for on-premise and hybrid cloud storage delivered as-a-Service, providing a seamless purchasing model for customers.

Cloud Block Store

Cloud Block Store provides industrial-strength block storage services, running natively in the public cloud on top of basic cloud storage. *Cloud Block Store* is based upon the same *Purity OE* software that is used in on-premise environments, enabling customers to easily achieve hybrid cloud workflows. Our *Cloud Data Services* are software-delivered, require no hardware running in the public cloud or internet co-location data centers, and are designed to be multi-cloud, presently supporting Amazon Web Services. *Cloud Block Store* provides customers with a consistent storage experience and flexibility to operate a hybrid cloud model, leveraging both on-premise and public cloud infrastructure.

Growth Strategies

Key elements of our growth strategy include:

- Relentlessly Innovate and Maintain Technology Leadership. We will continue to invest in product innovation and technology leadership and plan to enhance our flash-optimized software and hardware portfolio, including *FlashBlade*, *FlashArray//C* and cloud-native applications, and cloud-based data management to lead the modernization of disk to flash storage. We will continue to develop strategic relationships with technology vendors to expand the ecosystem and allow integration of our platform with their offerings, delivering streamlined solution outcomes to our customers.

- Drive Subscription Services and as-a-Service (flexible consumption model) Growth. We will continue to lead the market and expand our as-a-Service and subscriptions offerings to deliver our technology to customers in the most low-friction, flexible, and easy-to-consume ways. Our as-a-Service offerings are rooted in our core product technology, deliver a true "service experience," and allow us to continue to grow our base of recurring subscriptions.

- Continue to Drive Customer Base and Large Customer Adoption. We will continue to grow our base of customers, including large customers, by promoting our platform, increasing our investment in sales and marketing and leveraging our network of channel partners. We believe our over 8,000 customers represent a significant opportunity for us to realize incremental sales. We sell additional products and services to our customers as the data within their existing application deployments naturally grows and as customers migrate additional applications to our platform.

Our Customers

Our global customer base is over 8,700 at the end of fiscal 2021, including approximately 48% of the Fortune 500. Large enterprises and smaller organizations with limited IT expertise or budget consume and benefit from using our technology. We have deployed our products and subscription services to customers across multiple industry verticals and geographies. We define a customer as an entity that purchases our products and services either from one of our channel partners or from us directly.

Sales and Marketing

Sales. We sell our products and subscription services using a direct sales force, including a specialized sales force for our key growth products, and our channel partners. Our sales organization is supported by sales engineers with deep technical expertise and responsibility for pre-sales technical support, solutions engineering and technical training. Our channel partners sell and market our products and subscription services in partnership with our direct sales force. This joint sales approach provides us with the benefit of direct relationships with our customers and expands our reach through the relationships of our channel partners. In certain geographies we sell through a two-tier distribution model. We also sell to service providers that deploy our products and offer cloud-based storage services to their customers. We intend to continue to invest in our channel partners.

Technology Alliances. We work closely with technology partners that help us deliver an ecosystem of world-class solutions to our customers and ensure the efficient deployment and support of their environments. Our technology partners include application partners such as Microsoft, Oracle and SAP, cloud partners such as AWS, Microsoft Azure, Google, and IBM, and infrastructure partners such as Arista, Cisco, NVIDIA and VMware. In addition, we work closely with our technology partners through co-marketing and lead-generation activities in an effort to broaden our marketing reach and help us win new customers and retain existing ones.

Marketing. Our marketing is focused on building our brand reputation and market awareness, communicating product advantages and demand generation for our sales force and channel partners. Our marketing effort consists primarily of product, field, channel, solutions, digital marketing and public relations.

Research and Development

Our research and development efforts are focused on innovation, building new features and functionality for our existing products and subscription services, developing software, and building new products. Our products integrate both software and hardware innovations, and accordingly, our research and development teams employ both software and hardware engineers in the design, development, testing, certification and support of our products. Our research and development teams are primarily based in Mountain View, California, Bellevue, Washington and Prague, Czech Republic. We also design, test and certify our products to ensure interoperability with a variety of third-party software, servers, operating systems and network components. We plan to continue investing globally in significant resources for our ongoing research and development efforts.

Manufacturing

Our contract manufacturers manufacture, assemble, test and package our products in accordance with our specifications. We provide our contract manufacturers with a rolling forecast for anticipated orders, which our contract manufacturers use to build finished products. The product mix and volumes are adjusted based on anticipated demand and actual sales and shipments in prior periods. Our contract manufacturers are generally able to respond to changes in our product mix or volume without significant delay or increased costs. We work closely with our contract manufacturers to meet our product delivery requirements and to manage the manufacturing process and quality control.

Seasonality

We generally experience seasonality as sales of our products and subscription services are generally lower during the first quarter of our fiscal year and highest during the last quarter of our fiscal year. As a result, we expect that our business and results of operations will fluctuate from quarter to quarter.

Competition

We operate in the intensely competitive data storage market that is characterized by constant change and innovation. Changes in the application requirements, data center infrastructure trends and the broader technology landscape result in evolving customer requirements for capacity, performance scalability and enterprise features of storage systems. Our main competitors include legacy vendors, such as Dell EMC, Hitachi Vantara, HP Enterprise, IBM, and NetApp, each of which offer a broad range of systems targeting various use cases and end markets, and have the technical and financial resources to bring competitive products to market.

In addition, we compete against cloud providers and vendors of hyperconverged products. Some large-scale cloud providers, known for developing storage systems internally, offer alternatives to our products for a variety of customer workloads. Our market attracts new startups and more highly specialized vendors, as well as other vendors that may continue to acquire or bundle products that compete with our offerings. All of our competitors utilize a broad range of competitive strategies.

We believe the principal competitive factors in the storage market are as follows:

- Product features and enhancements, including ease of use, performance, reliability, scalability, security, and complementary product offerings;
- Product pricing and total cost of ownership;
- Product interoperability with customer networks and backup software;
- Global sales and distribution capability, including an ability to build and maintain senior customer relationships;
- Ability to take advantage of improvements in industry standard components; and
- Customer support and service.

We believe we generally compete favorably with our competitors on these factors as a result of our hardware and software, product capabilities, ability to deliver the benefits of all-flash storage to a broad set of customers, management simplicity, ease of use and differentiated customer support. However, many of our competitors have substantially greater financial, technical and other resources, greater name recognition, larger sales and marketing budgets, broader distribution and larger and more mature intellectual property portfolios.

Intellectual Property

Our success depends in part upon our ability to protect our core technology and intellectual property. To establish and protect our proprietary rights, we rely on a combination of intellectual property rights, including patents, trademarks, copyrights, trade secret laws, license agreements, confidentiality procedures, employee disclosure and invention assignment agreements and other contractual rights.

We have over 2,000 issued patents and patent applications in the United States and foreign countries. We also license technology from third parties when we believe it will facilitate our product offerings or business.

Human Capital Resources

Our Chief People Officer (CPO) leads our human capital initiatives which includes the design and execution of all people strategy components. The CPO delivers human capital reports to the board of directors and compensation committee on a quarterly basis.

This past year we saw the evolution and pivot of our business strategy to cloud and data services which tested our organization’s agility and overall effectiveness. This inflection point served as a springboard to drive additional improvements across our business, including as it relates to our people strategy.

Our workforce is distributed over 39 countries, with 3,800 employees globally - almost 2,800 in the U.S. and over 1,000 internationally. We mobilize and engage our teams to support our cloud and data services strategy using the following objectives and measures.

Overall Employee Satisfaction

To ensure employee engagement and satisfaction, we assess employees twice a year through our Employee Voice Survey program. We focus on measuring employee engagement, manager effectiveness, inclusion and belonging, and operational excellence. Also, as a result of COVID-19, we added five additional touchpoints to understand how our employees were coping, specifically measuring resilience and overall well-being. Our employee net promoter score (eNPS) score has been consistently high since we started this survey a few years ago.

Response to COVID-19 Pandemic

In January 2020, our CPO brought together leaders from across the business to form a cross-functional rapid response team (Tiger Team) to address COVID-19. This COVID-19 Tiger Team continues to meet several times weekly focused on providing accurate guidance, policies and programs to support our employees around the world. Here are last year's highlights:

- Work-from-home: To support the transition to working from home, we provided work-from-home stipends to build out home offices with ergonomic equipment.
- Benefits: We customized our benefit offerings to lean into programs focused on managing stress and mental health. All employees have virtual mental health and coaching sessions easily accessible to them and U.S. employees have 24/7 access to a virtual care team through a vendor which focuses on delivering COVID-19 testing, counseling, and family support. We also refreshed our death and permanent disability insurance to provide world-class coverage during the pandemic.
- Parents: We held several parent panels across our global regions designed to offer support and best practices to our community of parents. We also offered free resources, giving parents with children of any age, access to learning materials, webinars, and one-on-one coaching sessions.
- Essential worker safety: We launched the Return to Office Playbook that outlines new safety and health protocols to keep essential workers safe in our offices. The playbook also outlines protocols in the event of a COVID-19 exposure to ensure an accurate chain of communications and next steps are taken in that specific office/region.
- Workforce of the future: Looking to a post-COVID world, we will shift to a hybrid workforce where offices will offer more collaborative spaces and working from home will become part of the regular week.

Culture of Excellence, Accountability, and Learning

Our company goals and leadership attributes set the tone for our culture of excellence and accountability. Through our Speak Up Policy, Code of Conduct, and Culture of Compliance survey, employees are empowered to use their voice and be transparent without fear of retaliation. In recognition, we garnered several accolades this year: Fortune Best Workplaces in Technology™ 2020, Fortune Best Workplaces in the Bay Area™ 2020, and Fortune Best Workplaces for Parents.

In the past year, the Pure Learning and Development team has redesigned all of their program offerings to an entirely virtual delivery model, while also creating new programs like Manager Essentials and Leading at Pure, which focus entirely on building our leaders of tomorrow.

Growing, Retaining and Attracting Talent

Our talent is our greatest asset. We are actively growing our employees from a skills and leadership perspective while also retaining our top performers and diverse talent. Our annual performance program brings feedback and rewards together to help facilitate an ongoing conversation between managers and employees on progress, goals, and expectations. We remain committed to our diverse hiring and sourcing practices to achieve healthy representation in candidate slates and interviewer panels while also bringing rigor and accountability to evaluating and hiring our talent.

Diversity, Inclusion, Belonging (DIBs)

We hired our first Head of Diversity, Inclusion and Belonging in 2020 to further invest in our equity efforts. Our employee DIBs index last year, based on an internal employee survey, was high, reflecting the positive impact of our inclusivity efforts to date. We also have seven Employee Resource Groups that meet monthly and continue to be the fabric of our culture.

Total Rewards

We provide competitive and fair compensation and innovative benefit offerings. We regularly benchmark our programs against the market to ensure we are delivering competitive salaries, variable pay, equity awards as well as health and welfare benefits to employees. We conduct internal pay equity analyses to ensure appropriate pay is provided to everyone. We offer a comprehensive and tailored set of benefits to employees and their families including wellness programs and parental and adoption leave.

Available Information

Our website address is www.purestorage.com. Information contained on or accessible through our website is not a part of this report and the inclusion of our website address in this report is an inactive textual reference only.

We make available, free of charge through our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Sections 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after they have been electronically filed with, or furnished to, the SEC. In addition, the SEC maintains an internet site (http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Trademark Notice

Pure Storage, the *"P"* logo and other trade names, trademarks or service marks of Pure Storage appearing in this report are the property of Pure Storage. Trade names, trademarks and service marks of other companies appearing in this report are the property of their respective holders.

Item 1A. Risk Factors.

Investing in our Class A common stock, which we refer to as our "common stock", involves a high degree of risk. Investors should carefully consider the risks and uncertainties described below, together with all of the other information contained in this report, including our consolidated financial statements and the related notes appearing in this annual report, before deciding to invest in our common stock. If any of the following risks actually occur, it could harm our business, prospects, operating results and financial condition. In such event, the trading price of our common stock could decline and investors might lose all or part of their investment.

Summary of Risk Factors

Our business is subject to numerous risks and uncertainties, many of which are beyond our control. Some of the principal risks associated with our business include the following:

- Our business, operating results, cash flows and financial condition may be materially adversely affected by the COVID-19 pandemic, including the resulting global economic uncertainty and measures taken in response to the pandemic.
- The rapidly evolving market for data storage products makes it difficult to forecast demand for our products.
- Our business may be harmed by trends in the overall external storage market.
- We face intense competition from established companies and new entrants.
- Many of our competitors have long-standing relationships with key decision makers at current and prospective customers, which may inhibit our ability to compete.
- If we fail to develop and introduce new or enhanced products successfully, our ability to attract and retain customers could be harmed.
- If we fail to manage our transition to subscription offerings successfully, our revenues and results of operation may be harmed.
- We intend to continue focusing on revenue growth and increasing our market penetration and international presence by investing heavily in our business, which may put pressure on near-term profitability.
- Our gross margins are impacted by a variety of company-specific factors and vary from period to period.
- The sales prices of our products and services may fluctuate or decline, which may reduce our gross profits, revenue growth, and adversely impact our financial results.
- Any disruption to our contract manufacturer or other supply arrangements could delay shipments of our products and could harm our relationships with current and prospective customers.
- We derive the majority of our revenue from our *FlashArray* products, and a decline in demand for these products would cause our revenue to grow more slowly or to decline.

Risks Related to Our Business and Industry

Our business, operating results, cash flows and financial condition may be materially adversely affected by the COVID-19 pandemic, including the resulting global economic uncertainty and measures taken in response to the pandemic, the impacts of which will depend on ongoing and future developments, which are highly uncertain and difficult to predict.

The COVID-19 pandemic has resulted in significant global social and business disruption and economic contraction. The pandemic has impacted our business and has also put unprecedented strains on governments, health care systems, educational institutions, businesses and individuals around the world. The ongoing impact on the global population and the magnitude and duration of the COVID-19 pandemic is difficult to assess or predict. It is even more difficult to predict the ongoing impact on the global economic market, which will be highly dependent, among other things, upon the actions of governments, businesses and other organizations in response to the pandemic and the effectiveness of those actions.

The extent and continued impact of the COVID-19 pandemic on our business and operational and financial performance depends on many factors, including the duration and spread of the outbreak; the availability and effectiveness of vaccines; government responses to and restrictions related to the pandemic; impact on our customers and our sales efforts and cycles; impact on our customer, industry or employee events; and effect on our partners, vendors and supply chains, all of which are uncertain and outside of our control. Potential negative impacts of these external factors include, but are not limited to, material adverse effects on demand for our products and services, including due to budget constraints and other uncertainties; our ability to gain new customers; our employee productivity; our supply chain and sales and distribution channels; collectability of customer accounts; our ability to execute strategic plans; impairments; and our profitability and cost structure.

Further, the COVID-19 pandemic has enhanced, and may further exacerbate, other risks discussed in this “Risk Factors” section, particularly risks associated with demand, market trends, relationship building and sales efforts, as well as risks affected by the shift to our workforce largely working from home. We are continuing to monitor the pandemic and intend to continue taking appropriate steps in accordance with the recommendations and requirements of relevant authorities.

The rapidly evolving market for data storage products makes it difficult to forecast demand for our products.

The market for data storage products is rapidly evolving. Changes in the application requirements, data center infrastructure trends and the broader technology landscape result in evolving customer requirements for capacity, performance scalability and enterprise features of storage systems. Our future financial performance depends on our ability to adapt to competitive dynamics and emerging customer demands and trends. The introduction of all-flash storage products by incumbent vendors and changes or advances in alternative technologies or adoption of cloud storage offerings that do not utilize our storage platform could adversely affect the demand for our products. Offerings from large public cloud providers are expanding quickly and serve as alternatives to our products for a variety of customer workloads. Since these providers are known for developing storage systems internally, this trend reduces the demand for storage systems developed by original equipment manufacturers, such as us. It is difficult to predict with any precision customer adoption rates of new offerings, customer demand for our products or the future growth rate and size of our addressable market. A slowing or reduction in demand for our data storage products caused by technological challenges, alternative technologies and products or any other reason would result in a lower revenue growth rate or decreased revenue, either of which would negatively impact our business and operating results.

Our business may be harmed by trends in the overall external storage market.

Despite ongoing data growth, the external storage market in which we compete has not experienced substantial growth in the past few years due to a combination of technology transitions, increased storage efficiency, competitive pricing dynamics and changing economic and business environments. Customers are rethinking how they consume IT, increasing spending toward the public cloud, software as a service, hyperconverged and converged infrastructure and software-defined storage. Any failure on our part to accurately predict trends, successfully update our product offerings or to adapt our sales programs to meet changing customer demands could harm our business, operating results and financial condition. The future impact of these trends on both the short-term and long-term growth of the overall external storage market is uncertain. Reductions in the overall external storage market or the specific markets in which we compete would harm our business and operating results.

We face intense competition from established companies and new entrants.

We face intense competition from a number of established companies that sell competitive storage products, including Dell EMC, HP Enterprise, Hitachi Vantara, IBM, NetApp and others. Our competitors may have:

- greater name and brand recognition and longer operating histories;
- larger sales and marketing and customer support budgets and resources;
- broader distribution and established relationships with distribution partners and customers;
- the ability to bundle storage products with other products and services to address customers’ requirements;
- greater resources to make acquisitions;

- larger and more mature product and intellectual property portfolios; and
- substantially greater financial, technical and other resources.

We also compete against cloud providers and vendors of hyperconverged products, which combine compute, networking and storage. These providers are growing and expanding their product offerings, potentially displacing some demand for our products. In addition, some of our competitors offer bundled products and services in order to reduce the initial cost of their storage products. Further, some of our competitors offer their storage products either at significant discounts or even for free in competing against us.

Many competitors have developed or acquired competing storage technologies with features or data reduction technologies that directly compete with our products or have introduced business programs designed, among other things, to compete with our innovative programs, such as our *Evergreen Storage* model. We expect our competitors to continue to improve their products, reduce their prices and introduce new features, services and technologies that may, or may claim to, offer greater value compared to our products. In addition, these developments may render our products or technologies obsolete or less competitive. These and other competitive pressures may prevent us from competing successfully against our current or future competitors.

Many of our competitors have long-standing relationships with key decision makers at current and prospective customers, which may inhibit our ability to compete.

Many of our competitors benefit from established brand awareness and long-standing relationships with key decision makers at our current and prospective customers. Our competitors often leverage these existing relationships to discourage customers from evaluating or purchasing our products. Additionally, most of our prospective customers have existing storage products supplied by our competitors who have an advantage in retaining the customer because, among other things, the incumbent vendor already understands the customer's IT infrastructure, user demands and needs, or the customer is concerned about actual or perceived costs of switching to a new vendor and technology, particularly during the uncertainty created by COVID-19. If we are unable to successfully sell our products to new customers or persuade our customers to continue purchasing our products, we will not be able to maintain or increase our market share and revenue, which would adversely affect our business and operating results.

Our brand name and our business may be harmed by the marketing strategies of our competitors.

We believe that building and maintaining brand recognition and customer goodwill is critical to our success. Our efforts in this area have, on occasion, been hampered by the marketing efforts of our competitors, which have included negative or misleading statements about us and our products. If we are unable to effectively respond to the marketing efforts of our competitors and protect our brand and customer goodwill now or in the future, our business will be adversely affected.

If we fail to successfully maintain or grow our relationships with partners, our business, operating results and financial condition could be harmed.

Our future success is highly dependent upon our ability to establish and maintain successful relationships with our partners, including value-added resellers, service providers and systems integrators. In addition to selling our products, our partners may offer installation, post-sale service and support in their local markets. In markets where we rely on partners more heavily, we have less contact with our customers and less control over the sales process and the quality and responsiveness of our partners. As a result, it may be more difficult for us to ensure the proper delivery and installation of our products or the quality or responsiveness of the support and services being offered. Any failure on our part to effectively identify, train and manage our channel partners and to monitor their sales activity, as well as the customer support and services provided to our customers, could harm our business, operating results and financial condition.

Our partners may choose to discontinue offering our products and services or may not devote sufficient attention and resources toward selling our products and services. We typically enter into non-exclusive, written agreements with our channel partners. These agreements generally have a one-year, self-renewing term, have no minimum sales commitment and do not prohibit our channel partners from offering products and services that compete with ours. Additionally, our competitors provide incentives to our existing and potential channel partners to use, purchase or offer their products and services or to prevent or reduce sales of our products and services. The occurrence of any of these events could harm our business, operating results and financial condition.

Our sales cycles can be long, unpredictable and expensive, making it difficult for us to predict future sales.

Our sales efforts involve educating our customers about the use and benefits of our products and often involves evaluation process that can result in a lengthy sales cycle, particularly for larger customers. We spend substantial time and resources on our sales efforts without any assurance that our efforts will produce any sales. COVID-19 has impacted our sales efforts, such as limiting our ability to travel for or host in-person meetings or events. In addition, product purchases are frequently subject to budget constraints, multiple approvals and unplanned administrative and other delays. Some of our customers make large concentrated purchases to complete or upgrade specific data storage deployments. As a consequence, our quarterly revenue and operating results may fluctuate from quarter to quarter. A substantial portion of our quarterly sales typically occurs during the last several weeks of the quarter, which we believe largely reflects customer buying patterns of products similar to ours and other products in the technology industry generally. Since revenue from a product sale is not recognized until performance obligations are satisfied, a substantial portion of our sales late in a quarter may negatively impact the recognition of the associated revenue. Furthermore, our products come with a 30-day money back guarantee, allowing a customer to return a product within 30 days of receipt if the customer is not satisfied with its purchase for any reason. These factors, among others, make it difficult for us to predict when customers will purchase our products, which may adversely affect our operating results and cause our operating results to fluctuate. In addition, if sales expected from a specific customer for a particular quarter are not realized in that quarter or at all, our operating results may suffer.

Sales to U.S. federal, state, local and foreign governments are subject to a number of challenges and risks that may adversely impact our business.

Sales to U.S. federal, state, local and foreign governmental agencies may in the future account for a significant portion of our revenue and sales to governmental agencies impose additional challenges and risks to our sales efforts. Government certification requirements applicable to our products may change and in doing so restrict our ability to sell into the U.S. federal government sector until we have attained the revised certification. Government demand and payment for our products and services may be impacted by public sector budgetary cycles and funding authorizations, including in connection with an extended federal government shutdown, with funding reductions or delays adversely affecting public sector demand for our products and services. We sell our products to governmental agencies through our channel partners, and these agencies may have statutory, contractual or other legal rights to terminate contracts with our distributors and resellers for convenience or due to a default, and any such termination may adversely impact our future results of operations. Governments routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government refusing to continue buying our products, which would adversely impact our revenue and results of operations, or institute fines or civil or criminal liability if the audit uncovers improper or illegal activities. Finally, governments may require certain products to be manufactured in the United States and other relatively high-cost manufacturing locations, and we may not manufacture all products in locations that meet these requirements, affecting our ability to sell these products to governmental agencies.

Risks Related to Our Products and Subscription Services Offerings

If we fail to develop and introduce new or enhanced products successfully, our ability to attract and retain customers could be harmed.

We operate in a dynamic environment characterized by rapidly changing technologies and industry standards and technological obsolescence. To compete successfully, we must design, develop, market and sell new or enhanced products that provide increasingly higher levels of performance, capacity and reliability and that meet the expectations of our customers, which is a complex and uncertain process. We believe that we must continue to dedicate significant resources to our research and development efforts, and innovative business models such as *Pure as-a-Service*, to maintain or expand our competitive position. Our investments may take longer to generate revenue or may generate less revenue than we anticipate. The introduction of new products by our competitors, or the emergence of alternative technologies or industry standards could render our existing or future products obsolete or less competitive.

As we introduce new or enhanced products, we must successfully manage product launches and transitions to the next generations of our products and encourage our customers to adopt new products and features. If we are not able to successfully manage the development and release of new or enhanced products, our business, operating results and financial condition could be harmed. Similarly, if we fail to introduce new or enhanced products, such as new or improved software features, that meet our customers' needs in a timely or cost-effective fashion, we may lose market share and our operating results could be adversely affected.

If we fail to execute our transition to subscription offerings successfully, our revenues and results of operation may be harmed.

We are now offering all of our products and services on a subscription basis, including our hardware and software products through *Pure as-a-Service* and *Cloud Data Services*. These business models are relatively new to the storage market and will continue to evolve, and we may not be able to compete effectively, drive continued revenue growth or maintain the profitability with these business models. These business models also require different accounting of our customer transactions, such as changing how we recognize revenue, cost of revenue, and capitalize commissions, among other things. Continued market acceptance of subscription offerings will be dependent on our ability to create a seamless customer experience and to optimally price our products in light of marketplace conditions, our costs and customer demand. Subscription offerings could subject us to increased risk of liability related to the provision of services as well as cause us to incur significant operational, technical, legal or other costs. Additionally, the subscription models offered by us and our competitors may unfavorably impact the pricing of and demand for our on-premise offerings, which could reduce our revenues and profitability. If we do not successfully execute our business strategy, which includes subscription offerings, or anticipate the needs of our customers, our financial results could be negatively impacted.

Our products are highly technical and may contain defects, which could cause data unavailability, loss or corruption that might, in turn, result in liability and harm to our reputation and business.

Our products are highly technical and complex and are often used to store information critical to our customers’ business operations. Our products may contain errors, defects or security vulnerabilities that could result in data unavailability, loss, corruption or other harm to our customers. Some errors in our products may only be discovered after they have been installed and used by customers. Any errors, defects or security vulnerabilities in our products could result in a loss of revenue, injury to our reputation, loss of customers or increased service and warranty costs, any of which could adversely affect our business and operating results. In addition, errors or failures in the products of third-party technology vendors may be attributed to us and may harm our reputation.

We could face claims for product liability, tort or breach of warranty. We may not be able to enforce provisions in our contracts relating to warranty disclaimers and liability limitations. Defending a lawsuit, regardless of its merit, would be costly and could divert management’s attention and adversely affect the market’s perception of us and our products. Our business liability insurance coverage may be inadequate with respect to a claim and future coverage may not be available on acceptable terms or at all. These product-related issues could result in claims against us, and our business, operating results and financial condition could be harmed.

If we are unable to ensure that our products interoperate with third party operating systems, software applications and hardware, we may lose or fail to increase our market share.

Our products must interoperate with our customers’ infrastructure, specifically networks, servers, software and operating systems, which are offered by a wide variety of vendors. When new or updated versions of these operating systems or applications are introduced, we may need to develop updated versions of our software so that our products continue to interoperate properly. We may not deliver or maintain interoperability quickly, cost-effectively or at all as these efforts require capital investment and engineering resources. If we fail to maintain compatibility of our products with these infrastructure components, our customers may not be able to fully utilize our products, and we may, among other consequences, lose or fail to increase our market share and experience reduced demand for our products, which may harm our business, operating results and financial condition.

Our products must conform to industry standards in order to be accepted by customers in our markets.

Generally, our products comprise only a part of an IT environment. The servers, network, software and other components and systems deployed by our customers must comply with established industry standards in order to interoperate and function efficiently together. We depend on companies that provide other systems in this ecosystem to conform to prevailing industry standards. These companies are often significantly larger and more influential in driving industry standards than we are. Some industry standards may not be widely adopted or implemented uniformly and competing standards may emerge that may be preferred by our customers. If larger companies do not conform to the same industry standards that we do, or if competing standards emerge, sales of our products could be adversely affected, which may harm our business.

Our ability to successfully market and sell our products is dependent in part on ease of use and the quality of our support offerings, and any failure to offer high-quality installation and technical support could harm our business.

Once our products are deployed by our customers, customers depend on our support organization to resolve technical issues relating to our products. Our ability to provide effective support is largely dependent on our ability to attract, train and retain qualified personnel, as well as to engage with qualified support partners that provide a similar level of customer support. In addition, our sales process is highly dependent on our product and business reputation and on recommendations from our existing customers. Although our products are designed to be interoperable with existing servers and systems, we may need to provide customized installation and configuration support to our customers before our products become fully operational in their environments. Any failure to maintain or a market perception that we do not maintain, high-quality installation and technical support could harm our reputation, our ability to sell our products to existing and prospective customers and our business.

We rely on contract manufacturers to manufacture our products, and if we fail to manage our relationships with our contract manufacturers successfully, our business could be negatively impacted.

We rely on a limited number of contract manufacturers to manufacture our products, which reduces our control over the assembly process and exposes us to risks, such as reduced control over quality assurance, costs and product supply. If we fail to manage our relationships with these contract manufacturers effectively, or if these contract manufacturers experience delays, disruptions, capacity constraints or quality control problems, our ability to timely ship products to our customers will be impaired, potentially on short notice, and our competitive position, reputation and financial results could be harmed. If we are required, for whatever reason, to change contract manufacturers or assume internal manufacturing operations, we may lose revenue, incur increased costs and damage our customer relationships. Qualifying a new contract manufacturer and commencing production is expensive and time-consuming. We may need to increase our component purchases, contract manufacturing capacity and internal test and quality functions if we experience increased demand. The inability of our contract manufacturers to provide us with adequate supplies of high-quality products could cause a delay in our order fulfillment, and our business, operating results and financial condition may be harmed.

We rely on a limited number of suppliers, and in some cases single-source suppliers, and any disruption or termination of our supply arrangements could delay shipments of our products and could harm our relationships with current and prospective customers.

We rely on a limited number of suppliers and, in some cases, on single-source suppliers, for several key components of our products, and we have not generally entered into agreements for the long-term purchase of these components. For example, the CPUs utilized in our products are supplied by Intel Corporation (Intel), and neither we nor our contract manufacturers have an agreement with Intel for the procurement of these CPUs. Instead, we purchase the CPUs either directly from Intel or through a reseller on a purchase order basis. Intel or its resellers could stop selling to us at any time or could raise their prices without notice. While we actively monitor and manage our supply chain, we cannot anticipate the potential impact that new or current restrictions due to COVID-19 may have on the manufacturing and shipment of our products.

This reliance on a limited number of suppliers and the lack of any guaranteed sources of supply exposes us to several risks, including:

- the inability to obtain an adequate supply of key components, including flash;
- price volatility for the components of our products;

- failure of a supplier to meet our quality or production requirements;
- failure of a supplier of key components to remain in business or adjust to market conditions; and
- consolidation among suppliers, resulting in some suppliers exiting the industry, discontinuing the manufacture of components or increasing the price of components.

Further, some of the components in our products are sourced from component suppliers outside the United States, including from China. The portion of our products that are sourced outside the United States may subject us to additional logistical risks or risks associated with complying with local rules and regulations in foreign countries. Significant changes to existing international trade agreements could lead to sourcing or logistics disruption resulting from import delays or the imposition of increased tariffs on our sourcing partners. For example, there have been discussions regarding potential significant changes to U.S. trade policies, legislation, treaties and tariffs, and the United States and Chinese governments have announced import tariffs by both countries. If any new legislation and/or regulations are implemented, if existing trade agreements are renegotiated or terminated, or if tariffs are imposed on foreign-sourced or U.S. goods, it may be inefficient and expensive for us to alter our business operations in order to adapt to or comply with such changes. Such operational changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

As a result of these risks, we cannot assure investors that we will be able to obtain a sufficient supply of these key components in the future or that the cost of these components will not increase. If our supply of components is disrupted or delayed, or if we need to replace our existing suppliers, there can be no assurance that additional components will be available when required or that components will be available on terms that are favorable to us, which could extend our lead times, increase the costs of our components and harm our business, operating results and financial condition. We may not be able to continue to procure components at reasonable prices, which may require us to enter into longer-term contracts with component suppliers to obtain components at competitive prices. Any of the foregoing disruptions could increase our costs and decrease our gross margins, harming our business, operating results and financial condition.

If we do not manage the supply of our products and their components efficiently, our results of operation could be adversely affected.

Managing the supply of our products and underlying components is complex. Our third-party contract manufacturers procure components and build our products based on our forecasts, and we generally do not hold inventory for a prolonged period of time. These forecasts are based on estimates of future demand for our products, which are in turn based on historical trends and analyses from our sales and marketing organizations, adjusted for overall market conditions. In order to reduce manufacturing lead times and plan for adequate component supply, from time to time we may issue orders for components and products that are non-cancelable and non-returnable. Our inventory management systems and related supply chain visibility tools may be inadequate to enable us to make accurate forecasts and effectively manage the supply of our products and components. If we ultimately determine that we have excess supply, we may have to reduce our prices and write down or write off excess or obsolete inventory, which in turn could result in lower gross margins. Alternatively, insufficient supply levels may lead to shortages that result in delayed revenue, reduced product margins or loss of sales opportunities altogether. If we are unable to effectively manage our supply and inventory, our results of operations could be adversely affected.

Risks Related to Our Operating Results or Financial Condition

We have experienced growth in prior periods, and we may not be able to sustain future growth effectively or at all.

We have significantly expanded our overall business, customer base, headcount, channel partner relationships and operations in prior periods, and we anticipate that we will continue to expand and experience growth in future periods. For example, we delivered year-over-year revenue growth of 2% for fiscal 2021 and our headcount increased from over 2,800 to over 3,400 employees at the end of fiscal 2019 to the end of fiscal 2020, and to over 3,800 employees at the end of fiscal 2021. Our future operating results will depend to a large extent on our ability to successfully sustain our growth our anticipated expansion. To sustain and manage our growth successfully, we believe that we must, among other things, effectively allocate resources and operate our business across a wide range of priorities.

We expect that our future growth will continue to place strain on our managerial, administrative, operational, financial and other resources. We will incur costs associated with this future growth prior to realizing the anticipated benefits, and the return on these investments may be lower, may develop more slowly than we expect or may never materialize. Investors should not consider our revenue growth in prior quarterly or annual periods as indicative of our future performance. In future periods, we may not achieve similar percentage revenue growth rates as we have achieved in some past periods. If we are unable to maintain adequate revenue or revenue growth, our stock price could be volatile, and it may be difficult to achieve and maintain profitability. If we are unable to manage our growth successfully, we may not be able to take advantage of market opportunities or release new products or enhancements in a timely manner, and we may fail to satisfy customers’ expectations, maintain product quality, execute on our business plan or adequately respond to competitive pressures, each of which could adversely impact our growth and affect our business and operating results.

We intend to continue focusing on revenue growth and increasing our market penetration and international presence by investing heavily in our business, which may put pressure on near-term profitability.

We have not achieved profitability for any year since our inception. We incurred a net loss of $282.1 million for fiscal 2021, and we had an accumulated deficit of $1,565.0 million at the end of fiscal 2021. Our operating expenses largely are based on anticipated revenue, and a high percentage of our expenses are, and will continue to be, fixed in the short term. If we fail to adequately increase revenue and manage costs, we may not achieve or maintain profitability in the future. As a result, our business could be harmed, and our operating results could suffer.

Our strategy is to continue investing in marketing, sales, support and research and development. We believe continuing to invest heavily in our business is critical to our future success and meeting our growth objectives. We anticipate that our operating costs and expenses will continue to increase in absolute terms. Even if we achieve or maintain significant revenue growth, we may continue to experience losses, forgoing near-term profitability on a U.S. GAAP basis.

Our gross margins are impacted by a variety of factors and vary from period to period, making them difficult to predict with certainty.

Our gross margins fluctuate from period to period due primarily to product costs, customer mix and product mix. A variety of factors may cause our gross margins to fluctuate and make them difficult to predict, including, but not limited to:

- sales and marketing initiatives, discount levels, rebates and competitive pricing;
- changes in customer, geographic or product mix, including mix of product configurations;
- the cost of components, including flash and DRAM, and freight;
- new product introductions and enhancements with higher product costs;
- excess inventory levels or purchase obligations as a result of changes in demand forecasts or product transitions;
- an increase in product returns, order rescheduling and cancellations;
- the timing of technical support service contracts and contract renewals; and
- inventory stocking requirements to mitigate supply constraints, accommodate unforeseen demand or support new product introductions.

If we are unable to manage these factors effectively, our gross margins may decline, and fluctuations in gross margins may make it difficult to manage our business and achieve or maintain profitability, which could materially harm our business, operating results and financial condition.

Our operating results may fluctuate significantly, which could make our future results difficult to predict and could cause our operating results to fall below expectations.

Our operating results may fluctuate due to a variety of factors, a portion of which are outside of our control. As a result, comparing our results on a period-to-period basis may not be meaningful.

Factors that are difficult to predict and that could cause our operating results to fluctuate include:

- the timing and magnitude of orders, shipments and acceptance of our products in any quarter, including product returns, order rescheduling and cancellations by our customers;
- fluctuations or seasonality in demand and prices for our products;
- our ability to control the costs of the components we use or to timely adopt subsequent generations of components;
- disruption in our supply chains, component availability and related procurement costs;
- reductions in customers' budgets for IT purchases;
- changes in industry standards in the data storage industry;
- our ability to develop, introduce and ship new products and product enhancements that meet customer requirements and to effectively manage product transitions;
- changes in the competitive dynamics of our markets, including new entrants or discounting of product prices;
- our ability to control costs, including our operating expenses;
- the impact of adverse economic conditions and the impact of public health epidemics or pandemics, such as the COVID-19 pandemic; and
- future accounting pronouncements and changes in accounting policies.

The occurrence of any one of these factors could negatively affect our operating results in any particular quarter.

The sales prices of our products and services may fluctuate or decline, which may reduce our gross profits, revenue growth, and adversely impact our financial results.

The sales prices of our products and services may fluctuate or decline for a variety of reasons, including competitive pricing pressures, discounts, cost of components, a change in our mix of products and services, and the introduction of competing products or services or promotional programs. Competition continues to increase in the markets in which we participate, and we expect competition to further increase in the future, thereby leading to increased pricing pressures. Larger competitors may reduce the price of products or services that compete with ours or may bundle them with other products and services. Additionally, although we price our products and services predominantly in U.S. dollars, currency fluctuations in certain countries and regions may negatively impact actual prices that partners and customers are willing to pay in those countries and regions. Furthermore, we anticipate that the prices for our products will decrease over product life cycles. If we are required to decrease our prices to be competitive and are not able to offset this decrease by increases in the volume of sales or the sales of new products with higher margins, our gross margins and operating results could be adversely affected.

We derive the majority of our revenue from our FlashArray products, and a decline in demand for these products would cause our revenue to grow more slowly or to decline.

Our *FlashArray* products have historically accounted for the majority of our revenue and will continue to comprise a significant portion of our revenue for the foreseeable future, including through our subscription offerings. We have seen slower revenue growth in recent periods, which we believe has largely been driven by the pandemic. As a result, our revenue could be reduced by any decline or fluctuation in demand for these products, regardless of the reason. If demand for our core products slows or declines, we may not be able to increase our revenue or achieve and maintain profitability.

If we are unable to sell renewals of our subscription services to our customers, our future revenue and operating results will be harmed.

Existing customers may not renew their subscription services agreements after the initial period and, given changing customer purchasing preferences, we may not be able to accurately predict our renewal rates. Our customers' renewal rates may decline or fluctuate as a result of a number of factors, including their available budget and the level of their satisfaction with our products, customer support and pricing compared to that offered by our competitors. If our customers renew their contracts, they may renew on terms that are less economically beneficial to us. If our customers do not renew their agreements or renew on less favorable terms, our revenue may grow more slowly than expected, if at all.

We expect that revenue from subscription services will increase as a percentage of total revenue over time, and because we recognize this revenue over the term of the relevant contract period, downturns or upturns in sales of subscription services are not immediately reflected in full in our results of operations.

Our revenue from subscription services has been increasing as a percentage of total revenue over time. We are also increasing the number of our subscription-based offerings, such as *Pure as-a-Service*, though it is more difficult to predict the rate at which customers will adopt, and the rate at which our revenue will grow from these new offerings. We recognize subscription services revenue ratably over the term of the relevant period. As a result, much of the subscription services revenue we report each quarter is derived from agreements that we sold in prior quarters. Consequently, a decline in new or renewed subscription services agreements in any one quarter will not be fully reflected in revenue in that quarter but will negatively affect our revenue in future quarters. Accordingly, the effect of significant downturns in sales of subscription services is not reflected in full in our results of operations until future periods. It is also difficult for us to rapidly increase our subscription services revenue through additional sales in any period, as revenue from renewals must be recognized ratably over the applicable service period.

We may require additional capital to support business growth, and this capital might not be available on acceptable terms, or at all.

We intend to continue to make investments to support our business growth and may require additional funds to support business initiatives, including the need to develop new products or enhance our existing products, enhance our operating infrastructure and acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional funds through further issuances of equity or convertible debt securities, our stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing we undertake in the future could involve additional restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to support our business growth and to respond to business challenges could be significantly limited and our prospects and financial condition could be harmed.

We are exposed to the credit risk of some of our customers, which could harm our business, operating results and financial condition.

Most of our sales are made on an open credit basis. We monitor individual customer payment capability when we grant open credit arrangements and may limit these open credit arrangements based on perceived creditworthiness. We also maintain allowances we believe are adequate to cover exposure for doubtful accounts. Although we have programs in place that are designed to monitor and mitigate these risks, we cannot assure investors these programs will be effective in managing our credit risks, especially as we expand our business internationally. If we are unable to adequately control these risks, our business, operating results and financial condition could be harmed.

Risks Related to Our Operations

If we are unable to attract, motivate and retain sales, engineering and other key personnel, including our management team, we may not be able to increase our revenue and our business, operating results and financial condition could be harmed.

Our ability to increase our revenue depends on our ability to attract, motivate, and retain qualified sales, engineering and other key employees, including our management. These positions may require candidates with specific backgrounds in software and the storage industry, and competition for employees with such expertise is intense. 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. To the extent that we are successful in hiring to fill these positions, we may need a significant amount of time to train new employees before they are effective and efficient in performing their jobs. From time to time, there may be changes in our management team, which could create short term uncertainty. All of our employees, including members of our management team and executive officers, are generally employed on an at-will basis, which means that they could terminate their employment with us at any time. If we are unable to attract, motivate and retain qualified sales, engineering and other key employees, including our management or if they are unable to work effectively or at all due to the COVID-19 pandemic, our business and operating results could suffer.

If we fail to adequately expand and optimize our sales force, our growth will be impeded.

We need to continue to expand and optimize our sales organization in order to grow our customer base and our business. We plan to continue to expand and train our sales force, both domestically and internationally. We must design and implement effective sales incentive programs, and it can take time before new sales representatives are fully trained and productive. We must adapt our sales processes for new sales and marketing approaches, including those required by our shift to subscription services and the changes resulting from the pandemic. If we are unable to hire, develop and retain qualified sales personnel or if new sales personnel are unable to achieve desired productivity levels in a reasonable period of time, we may not be able to realize the expected benefits of these investments or increase our revenue and our business and operating results could suffer.

Our company culture has contributed to our success, and if we cannot maintain this culture as we grow, we could lose the innovation, creativity and teamwork fostered by our culture, and our business may be harmed.

We believe that our company culture has been a critical contributor to our success. Our culture fosters innovation, creativity, teamwork, passion for customers and focus on execution, and facilitates critical knowledge transfer and knowledge sharing. In particular, we believe that the difference between our sales, support and engineering cultures and those of incumbent vendors, is a key competitive advantage and differentiator for our customers and partners. As we grow and change or are required to adapt to changes in business operations as a result of the COVID-19 pandemic, we may find it difficult to maintain these important aspects of our company culture, which could limit our ability to innovate and operate effectively. Any failure to preserve our culture could also negatively affect our ability to retain and recruit personnel, continue to perform at current levels or execute on our business strategy.

Our long-term success depends, in part, on sales outside of the United States, which subjects us to costs and risks associated with international operations.

We maintain operations outside of the United States, which we have been expanding and intend to continue to expand in the future. As a company headquartered in the United States, conducting and expanding international operations subjects us to costs and risks that we may not generally face in the United States, including:

- exposure to foreign currency exchange rate risk;
- difficulties in collecting payments internationally;
- managing and staffing international operations;
- public health pandemics or epidemics, such as the COVID-19 pandemic;
- establishing relationships with channel partners in international locations;
- increased travel, infrastructure and legal compliance costs associated with international locations;

- requirements to comply with a wide variety of laws and regulations associated with international operations, including taxes and customs;
- significant fines, penalties and collateral consequences if we or our partners fail to comply with anti-bribery laws;
- heightened risk of improper, unfair or corrupt business practices in certain geographies;
- potentially adverse tax consequences, including repatriation of earnings;
- increased financial accounting and reporting burdens and complexities;
- political, social and economic instability abroad, terrorist attacks and security concerns in general; and
- reduced or varied protection for intellectual property rights in some countries.

The occurrence of any one of these risks could negatively affect our international operations and, consequently, our business, operating results and financial condition generally.

Our international operations, as well as U.S. tax reform, could expose us to potentially adverse tax consequences.

The U.S. Tax law changes enacted through the Tax Cuts and Jobs Act (the Tax Act) in December 2017 and The Coronavirus Aid, Relief, and Economic Security (CARES) Act passed in March 2020, are subject to further interpretations from the U.S. federal and state governments and regulatory organizations. Such interpretations could have a material adverse effect on our cash tax liabilities, results of operations, and financial condition.

We generally conduct our international operations through wholly owned subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. Given the passage of the Tax Act and other global tax developments, we continue to evaluate our corporate structure and intercompany relationships. Future changes to U.S. and global tax laws may adversely impact our effective tax rate.

Our intercompany relationships are, and after the implementation of any changes to our corporate structure will continue to be, subject to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. The relevant taxing authorities may disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position were not sustained, we could be required to pay additional taxes, interest and penalties, which could result in tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations.

Third-party claims that we infringe their intellectual property rights could be costly and harm our business.

There is a substantial amount of intellectual property litigation in the data storage industry, and we may become party to, or threatened with, litigation or other adversarial proceedings regarding our intellectual property rights. The outcome of intellectual property litigation is subject to uncertainties that cannot be adequately quantified in advance. We have been, and may in the future be, subject to claims that we infringe upon the intellectual property rights of other intellectual property holders, particularly as we grow and face increasing competition.

Any intellectual property rights claim against us or our customers, suppliers, and channel partners, with or without merit, could be time-consuming and expensive to litigate or settle, could divert management’s resources and attention from operating our business and could force us to acquire intellectual property rights and licenses, which may involve substantial royalty payments. Further, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages, including treble damages and attorneys’ fees if we are found to have willfully infringed a patent. An adverse determination also could invalidate our intellectual property rights, prevent us from manufacturing and selling our products and may require that we procure or develop substitute products that do not infringe, which could require significant effort and expense. We may not be able to re-engineer our products to avoid infringement, and we may have to seek a license for the infringed technology, which may not be available on reasonable terms or at all, may significantly increase our operating expenses or may require us to restrict our business activities in one or more respects. Even if we were able to obtain a license, it could be non-exclusive, which may give our competitors access to the same technologies licensed to us. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business. Any of these events could harm our business and financial condition.

We currently have a number of agreements in effect with our customers, suppliers and channel partners pursuant to which we have agreed to defend, indemnify and hold them harmless from damages and costs which may arise from claims of infringement by our products of third-party patents, trademarks or other proprietary rights. The scope of these indemnity obligations varies but may, in some instances, include indemnification for damages and expenses, including attorneys' fees. Our insurance may not cover intellectual property infringement claims. A claim that our products infringe a third party's intellectual property rights could harm our relationships with our customers, deter future customers from purchasing our products and expose us to costly litigation and settlement expenses. Even if we are not a party to any litigation between a customer and a third party relating to infringement claims by our products, an adverse outcome in any such litigation could make it more difficult for us to defend our products against intellectual property infringement claims in any subsequent litigation in which we are a named party. Any of these results could harm our brand, business and financial condition.

The success of our business depends in part on our ability to protect and enforce our intellectual property rights.

We rely on a combination of patent, copyright, service mark, trademark and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights, all of which provide only limited protection. We have over 2,000 issued patents and patent applications in the United States and foreign countries. We cannot assure investors that future patents issued to us, if any, will give us the protection that we seek, if at all, or that any patents issued to us will not be challenged, invalidated, circumvented or held to be unenforceable. Our issued and future patents may not provide sufficiently broad protection or may not be enforceable. Further, the laws of certain foreign countries do not provide the same level of protection of corporate proprietary information and assets such as intellectual property, trademarks, trade secrets, know-how and records, as the laws of the United States. For instance, the legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection. As a result, we may encounter significant problems in protecting and defending our intellectual property or proprietary rights abroad.

Changes to the intellectual property law in the United States and other jurisdictions could also diminish the value of our patents and patent applications or narrow the scope of our patent protection, among other intellectual property rights. We cannot be certain that the steps we have taken will prevent theft, unauthorized use or the reverse engineering of our proprietary information and other intellectual property, including technical data, manufacturing processes, data sets or other sensitive information. Moreover, others may independently develop technologies that are competitive to ours or that infringe our intellectual property. Furthermore, any of our trademarks may be challenged by others or invalidated through administrative process or litigation.

Protecting against the unauthorized use of our intellectual property, products and other proprietary rights is expensive and difficult. Litigation may be necessary in the future to enforce or defend our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Any such litigation could result in substantial costs and diversion of management's resources and attention, either of which could harm our business, operating results and financial condition. Further, many of our current and potential competitors have the ability to dedicate substantially greater resources than us to defend intellectual property infringement claims and enforce their intellectual property rights. Accordingly, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property. Effective patent, trademark, service mark, copyright and trade secret protection may not be available in every country in which our products are available. An inability to adequately protect and enforce our intellectual property and other proprietary rights could harm our business and financial condition.

Our use of open source software could impose limitations on our ability to commercialize our products.

We use open source software in our products and expect to continue to use open source software in the future. Although we monitor our use of open source software, the terms of many open source licenses have not been interpreted by U.S. or foreign courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market our products. From time to time, we may face claims from third parties claiming ownership of, or demanding release of, the open source software or derivative works that we have developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation and could require us to make our software source code freely available, seek licenses from third parties in order to continue offering our products for certain uses or cease offering the implicated solutions unless and until we can re-engineer them to avoid infringement. This re-engineering process could require significant additional research and development resources, and we may be required to discontinue providing some of our software if re-engineering cannot be accomplished on a timely basis, any of which could harm our business, operating results and financial condition.

Failure to comply with governmental laws and regulations could harm our business.

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/export controls, federal securities laws and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than in the United States. For example, the European Union has adopted certain directives to facilitate the recycling of electrical and electronic equipment sold in the European Union, including the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment directive and the Waste Electrical and Electronic Equipment directive.

Changes in applicable laws, regulations and standards could harm our business, operating results and financial condition. For example, we have been subject to the EU General Data Protection Regulation, or GDPR, since May 2018 and to the California Consumer Privacy Act (CCPA) since January 2020. These and potentially other future privacy regulations may require us to make further changes to our policies and procedures in the future beyond what we have already done. Our business could be impacted, to some extent, by the United Kingdom's exit from the European Union and related changes in law and regulation. We made changes to our data protection compliance program in relation to data privacy regulations and will continue to monitor the implementation and evolution of global data protection regulations, but if we are not compliant with such privacy regulations, we may be subject to significant fines and our business may be harmed. In addition, the CCPA places additional requirements on the handling of personal data and is currently subject to a revision and update process. The potential effects of this legislation are far-reaching and may require us to modify our data processing practices and policies and to incur substantial costs and expenses. Customers may choose to implement technological solutions to comply with such regulations that impact the performance and competitiveness of our products and solutions.

Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, mandatory product recalls, 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, operating results and financial condition could be harmed. Even the perception of privacy concerns, whether or not valid, may harm our reputation and inhibit competitiveness and adoption of our products by current and future customers. 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, operating results and financial condition.

Governmental regulations affecting the import or export of products could negatively affect our revenue.

The U.S. and various foreign governments have imposed controls, export license requirements and restrictions on the import or export of some technologies, especially encryption technology. From time to time, governmental agencies have proposed additional regulation of encryption technology, such as requiring the escrow of imports or exports. If we fail to obtain required import or export approval for our products or its various components, our international and domestic sales could be harmed and our revenue may be adversely affected. In many cases, we rely on vendors and channel partners to handle logistics associated with the import and export of our products, so our visibility and control over these matters may be limited. In addition, failure to comply with such regulations could result in penalties, costs and restrictions on export privileges, which could harm our business, operating results and financial condition.

If we or our products suffer a cybersecurity or other security breach, we may lose customers and incur significant liabilities.

In the ordinary course of business, we store sensitive data on our internal systems, networks and servers, which may include intellectual property, our proprietary business information and that of our customers, suppliers and business partners and sales data, which may, on occasion, include personally identifiable information. Additionally, we design and sell products that allow our customers to store their data. The security of our own networks and the intrusion protection features of our products are both critical to our operations and business strategy.

We devote significant resources to network security, data encryption and other security measures to protect our systems and data, but these security measures cannot provide absolute security. While we use encryption and authentication technologies to secure the transmission and storage of data and prevent third-party access to data or accounts, these security measures are subject to third party security breaches, employee error, malfeasance, faulty password management or other irregularities. Any destructive or intrusive breach of our internal systems could result in the information stored on our networks being accessed, publicly disclosed, lost or stolen.

Additionally, an effective attack on our products could disrupt the proper functioning of our products, allow unauthorized access to sensitive, proprietary or confidential information of ours or our customers, disrupt or temporarily interrupt our and our customers' operations or cause other destructive outcomes, including the theft of information sufficient to engage in fraudulent transactions. The risk that these types of events could seriously harm our business is likely to increase as we expand our network of channel partners, resellers and authorized service providers and operate in more countries. The economic costs to us to eliminate or alleviate cyber or other security problems, viruses, worms, malicious software systems and security vulnerabilities could be significant and may be difficult to anticipate or measure because the damage may differ based on the identity and motive of the programmer or hacker, which are often difficult to identify. If any of these types of security breaches were to occur and we were unable to protect sensitive data, our relationships with our business partners and customers could be materially damaged, our reputation and brand could be materially harmed, use of our products could decrease and we could be exposed to a risk of loss or litigation and possible liability.

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

We may, from time to time, acquire complementary products, technologies or businesses, such as our acquisitions of Portworx in October 2020 and Compuverde AB in April 2019. We also may enter into relationships with other businesses in order to expand our product offerings, which could involve preferred or exclusive licenses, additional channels of distribution or discount pricing or investments in other companies. Negotiating these transactions can be time-consuming, difficult and expensive, and our ability to close these transactions may be subject to third-party or government approvals, which are beyond our control. Consequently, we can make no assurance that these transactions, once undertaken and announced, will close.

These kinds of acquisitions or investments may result in unforeseen operating difficulties and expenditures. In particular, we may encounter difficulties assimilating or integrating the businesses, technologies, products, personnel or operations of acquired companies, particularly if the key personnel of the acquired business choose not to work for us, and we may have difficulty retaining the customers of any acquired business. Acquisitions may also disrupt our ongoing business, divert our resources and require significant management attention that would otherwise be available for development of our business. Any acquisition or investment could expose us to unknown liabilities. Moreover, we cannot assure investors that the anticipated benefits of any acquisition or investment will be realized. In connection with these types of transactions, we may issue additional equity securities that would dilute our stockholders, use cash that we may need in the future to operate our business, incur debt on terms unfavorable to us or that we are unable to repay, incur large charges or substantial liabilities, encounter difficulties integrating diverse business cultures and become subject to adverse tax consequences, substantial depreciation or deferred compensation charges. These challenges related to acquisitions or investments could harm our business and financial condition.

Risks Related to Our Credit Facility and Notes

Restrictive covenants in the agreement governing our senior secured revolving credit facility may restrict our ability to pursue business strategies.

In August 2020, we entered into a Credit Agreement with a consortium of financial institutions and lenders that provides for a five-year, senior secured revolving credit facility of $300.0 million (Credit Facility). We have borrowed $250.0 million under this Credit Facility. We could repay and re-borrow funds under this Credit Facility at any time, subject to customary borrowing conditions, for general corporate purposes and working capital.

The agreement governing our senior secured revolving Credit Facility limits our ability, among other things, to: incur additional secured indebtedness; sell, transfer, license or dispose of assets; consolidate or merge; enter into transactions with our affiliates; and incur liens. In addition, our senior secured revolving Credit Facility contains financial and other restrictive covenants that limit our ability to engage in activities that may be in our long term best interest, such as, subject to permitted exceptions, making capital expenditures in excess of certain thresholds, making investments, loans and other advances, and prepaying any additional indebtedness while our indebtedness under our senior secured revolving Credit Facility is outstanding. Our failure to comply with financial and other restrictive covenants could result in an event of default, which if not cured or waived, could result in the lenders requiring immediate payment of all outstanding borrowings or foreclosing on collateral pledged to them to secure the indebtedness.

We may not have the ability to raise the funds necessary to settle conversions of the Notes or to repurchase the Notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the Notes.

Holders of the Notes will have the right to require us to repurchase all or a portion of their Notes upon the occurrence of a fundamental change at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid special interest. In addition, if a make-whole fundamental change (as defined in the indenture for the Notes) occurs prior to the maturity date of the Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its Notes in connection with such make-whole fundamental change. Upon a conversion of the Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Notes being converted. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of Notes surrendered therefor or pay cash with respect to Notes being converted.

In addition, our ability to repurchase or to pay cash upon conversion of the Notes may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase the Notes at a time when the repurchase is required by the indenture governing the Notes or to pay cash upon conversion of the Notes as required by the indenture would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the payment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or to pay cash upon conversion of the Notes.

Servicing our debt will require a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the amounts payable under the Notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

We may still incur substantially more debt or take other actions that would diminish our ability to make payments on the Notes when due.

We and our subsidiaries may incur substantial additional debt in the future, subject to the restrictions contained in our future debt instruments, some of which may be secured debt, like the Credit Facility. We are not restricted under the terms of the indenture governing the Notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that could have the effect of diminishing our ability to make payments on the Notes when due. Furthermore, the indenture prohibits us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the Notes and the indenture. These and other provisions in the indenture could deter or prevent a third party from acquiring us even when the acquisition may be favorable to holders of the Notes.

The conditional conversion feature of the Notes, if triggered, may adversely affect our financial condition and operating results.

If the conditional conversion feature of the Notes is triggered, holders of the Notes will be entitled to convert the Notes at any time during specified periods at their option. If one or more holders elect to convert their Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock (other than by paying cash in lieu of delivering any fractional share), we may settle all or a portion of our conversion obligation in cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

The capped call transactions may affect the value of the Notes and our common stock.

In connection with the Notes, we entered into capped call transactions with certain financial institutions (the option counterparties). The capped call transactions are expected generally to reduce the potential dilution upon any conversion of the Notes and/or offset any cash payments we are required to make in excess of the principal amount upon conversion of the Notes, with such reduction and/or offset subject to a cap.

In connection with establishing their initial hedges of the capped call transactions, the option counterparties and/or their respective affiliates purchased shares of our common stock and/or entered into various derivative transactions with respect to our common stock. This activity could have increased (or reduced the size of any decrease in) the market price of our common stock or the Notes at that time.

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

The potential effect, if any, of these transactions and activities on the price of our common stock or the Notes will depend in part on market conditions and cannot be ascertained at this time. Any of these activities could adversely affect the value of our common stock.

Risks Related to Our Common Stock

The trading price of our common stock has been and may continue to be highly volatile, and an active, liquid, and orderly market for our common stock may not be sustained.

The trading price of our common stock has been, and will likely continue to be, highly volatile. Since shares of our common stock were sold in our initial public offering in October 2015 at a price of $17.00 per share, our closing stock price has ranged from $8.76 to $28.90, through March 18, 2021. Some of the factors, many of which are beyond our control, affecting our volatility may include:

- 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;
- actual or anticipated changes in our results of operations or fluctuations in our operating results;
- whether our operating results meet the expectations of securities analysts or investors;
- issuance or new or updated research or reports by securities analysts, including the publication of unfavorable reports or change in recommendation or downgrading of our common stock;
- actual or anticipated developments in our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry or both;
- general economic conditions and trends, including the impact of the COVID pandemic;
- major catastrophic events;
- sales of large blocks of our stock; or
- departures of key personnel.

In several recent situations where the price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our business, operating results and financial condition.

We cannot guarantee that our share repurchase program will enhance shareholder value, and share repurchases could affect the price of our common stock.

In August 2019, our board of directors authorized a $150.0 million share repurchase program, which is being funded from available working capital. The currently authorized program has been substantially completed as of the end of fiscal 2021 and in February 2021 our board of directors authorized a $200.0 million share repurchase program. The repurchase authorization has no fixed end date. Although our board of directors has authorized a share repurchase program, this program does not obligate us to repurchase any specific dollar amount or to acquire any specific number of shares. The share repurchase program could affect the price of our common stock, increase volatility and diminish our cash reserves.

If securities analysts do not publish research or reports about our business, or if they downgrade our stock, the price of our stock could decline.

The trading market for our common stock will likely be influenced by research and reports that securities or industry analysts publish about us or our business. If one or more of these analysts downgrades our stock, lowers their price target, or publishes unfavorable or inaccurate research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

We have never paid dividends on our common stock and we do not anticipate paying any cash dividends in the foreseeable future.

We have never declared or paid any dividends on our common stock. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. As a result, investors may only receive a return on their investment in our common stock if the market price of our common stock increases.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws and under Delaware law might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could depress the trading price of our common stock by acting to discourage, delay or prevent a change of control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions:

- establish a classified board of directors so that not all members of our board of directors are elected at one time;
- authorize the issuance of "blank check" preferred stock that our board of directors could issue to increase the number of outstanding shares to discourage a takeover attempt;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- prohibit stockholders from calling a special meeting of our stockholders;
- provide that the board of directors is expressly authorized to make, alter or repeal our bylaws; and
- establish advance notice requirements for nominations for elections to our board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings.

Additionally, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder and which may discourage, delay, or prevent a change of control of our company.

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

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

General Risk Factors

Adverse economic conditions may harm our revenues and profitability.

Our operations and performance depend in part on worldwide economic conditions and the economic health of our current and prospective customers. Global economic uncertainty, civil unrest and political and fiscal challenges in the United States and abroad can arise suddenly and affect the rate of information technology spending and could adversely affect our customers' ability or willingness to purchase our products and services. For example, the global macroeconomic environment could be negatively affected by the growth rate in the economy of the European Union, China, or the United States, trade relations between the United States and China, the impact of public health epidemics or pandemics, such as the COVID-19 pandemic, political uncertainty in the Middle East and other geopolitical events. Additionally, the United Kingdom's exit from the European Union is disruptive and remains subject to the successful conclusion of a final withdrawal agreement between the parties. In the absence of such an agreement, there would be no transitional provisions and any exit from the European Union could lead to adverse economic consequences. Weak economic conditions would likely adversely impact our business, operating results and financial condition in a number of ways, including by reducing sales, lengthening sales cycles and lowering prices of our products and services.

Our business is subject to the risks of earthquakes, fires, floods and other natural catastrophic events, and to interruption by man-made factors such as computer viruses or terrorism or by the impact of public health epidemics or pandemics, such as the COVID-19 pandemic.

We and our suppliers have operations in locations, including our headquarters in California, that are subject to earthquakes, fires, floods and other natural catastrophic events, such as severe weather and geological events, which could disrupt our operations or the operations of our customers and suppliers. Our customers affected by a natural disaster could postpone or cancel orders of our products, which could negatively impact our business. Moreover, should any of our key suppliers fail to deliver components to us as a result of a natural disaster, we may be unable to purchase these components in necessary quantities or may be forced to purchase components in the open market at significantly higher costs. We may also be forced to purchase components in advance of our normal supply chain demand to avoid potential market shortages. Our business interruption insurance may be insufficient to compensate us for losses due to a significant natural disaster or due to man-made factors. Any natural catastrophic events may also prevent our employees from being able to reach our offices in any jurisdiction around the world, and therefore impede our ability to conduct business as usual.

In addition, man-made factors, such as acts of terrorism or malicious computer viruses, and public health epidemics or pandemics, such as the COVID-19 pandemic, could cause disruptions in our or our customers' businesses or the economy as a whole. To the extent that these disruptions result in delays or cancellations of customer orders or the deployment of our products, our business, operating results and financial condition could be harmed.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

Our corporate headquarters are located in Mountain View, California. We also maintain offices in multiple locations in the United States and internationally in Africa, Asia, Australia, Europe, and South America, as well as Canada and Mexico. We lease all of our facilities and do not own any real property. We believe that our facilities are adequate to meet our needs for the immediate future, and that, should it be needed, suitable additional space will be available to accommodate expansion of our operations.

Item 3. Legal Proceedings.

The information set forth under the "Legal Matters" subheading in Note 8 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein by reference.

In addition, we may from time to time, be involved in various legal proceedings arising from the normal course of business, and an unfavorable resolution of any of these matters could materially affect our future results of operations, cash flows or financial position.

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 Class A common stock, which we refer to as our "common stock", trades publicly on the New York Stock Exchange (NYSE) under the ticker symbol "PSTG." We previously had two classes of common stock outstanding — Class A common stock and Class B common stock. In December 2018, all outstanding shares of our Class B common stock automatically converted into the same number of shares of our Class A common stock. Prior to such date, our Class B common stock was not listed nor traded on any stock exchange.

Holders of Record

As of March 18, 2021, there were 47 holders of record of our common stock. This figure does not include a substantially greater number of "street name" holders or beneficial holders of our common stock whose shares are held of record by banks, brokers and other financial institutions.

Dividend Policy

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

Purchases of Equity Securities by the Issuer

The following table summarizes our stock repurchase activity for the fourth quarter of fiscal 2021 (in thousands except for price per share):

Period	Average Price Paid per Share	Total Number of Shares Purchased as Part of Share Repurchase Program [1]	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Program [1]
November 2 - November 29, 2020	$ —	—	$ 23,616
November 30 - December 27, 2020	$ 22.79	695	$ 7,784
December 28 - January 31, 2021	$ 23.15	336	$ 16

[1] In August 2019, our board of directors authorized us to repurchase up to $150.0 million of our outstanding common stock under our share repurchase program. In February 2021, our board of directors authorized additional share repurchases of up to $200.0 million of our outstanding common stock. See "Liquidity and Capital Resources—Share Repurchase Program" included under Part II, Item 7 in this Annual Report.

The following table summarizes our shares of restricted common stock that were delivered by certain employees upon vesting of equity awards to satisfy tax withholding requirements for the fourth quarter of fiscal 2021 (in thousands except for price per share):

Period	Average Price per Share Delivered	Total Number of Shares Delivered to Satisfy Tax Withholding Requirements	Approximate Dollar Value of Shares Delivered to Satisfy Tax Withholding Requirements
November 2 - November 29, 2020	$ —	—	$ —
November 30 - December 27, 2020	$ 22.47	186	$ 4,177
December 28 - January 31, 2021	$ —	—	$ —

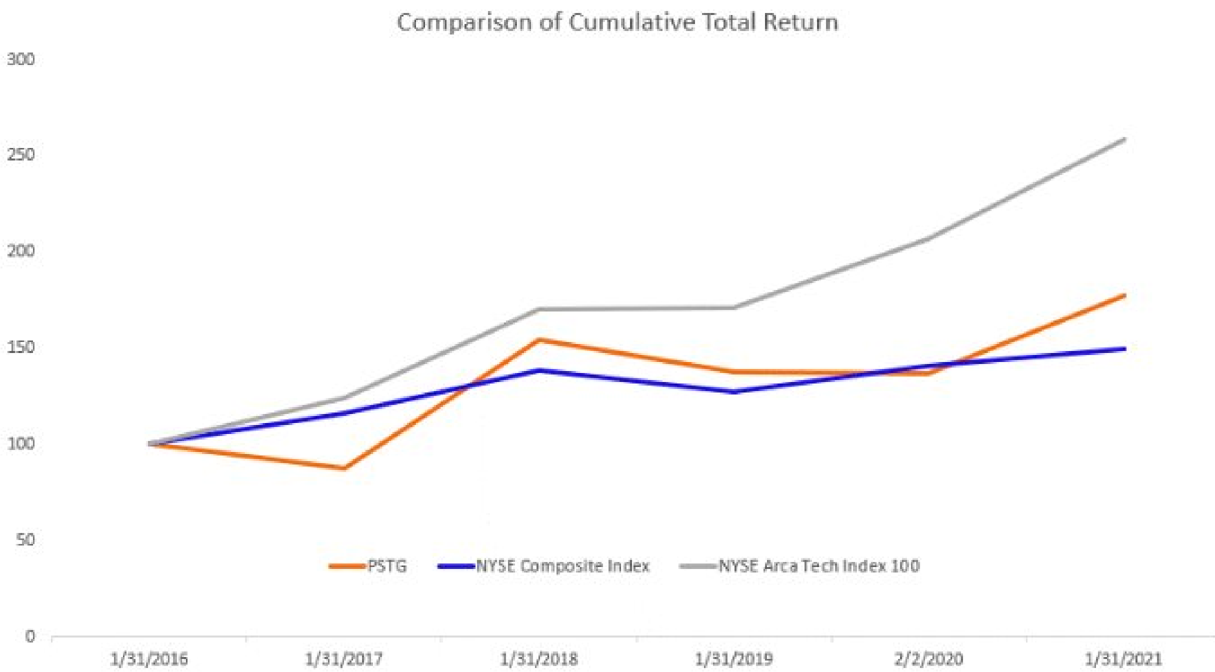
Trading Plans

Our insider trading policy permits directors, officers, and other employees covered under the policy to establish, subject to certain conditions and limitations set forth in the policy, written trading plans which are intended to comply with Rule 10b5-1 under the Exchange Act, which permits automatic trading of our common stock or trading of our common stock by an independent person (such as a stockbroker) who is not aware of material, nonpublic information at the time of the trade.

Stock Performance Graph and Cumulative Total Return

This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Pure Storage, Inc. under the Securities Act or the Exchange Act.

The following graph compares the cumulative total return to stockholders on our common stock relative to the cumulative total returns of the NYSE Composite Index and NYSE Arca Tech 100 Index for the five years ended January 31, 2021. The graph assumes that $100 (with reinvestment of all dividends) was invested in our common stock and in each index on January 31, 2016 and assumes the reinvestment of any dividends. The returns shown are based on historical results and are not intended to suggest future performance.



Item 6. Selected Financial Data.

The selected consolidated statements of operations data for fiscal 2019, 2020 and 2021 and the consolidated balance sheet data at the end of fiscal 2020 and 2021 are derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The consolidated statement of operations data for fiscal 2017 and 2018 and the consolidated balance sheet data at the end of fiscal 2017, 2018 and 2019 are derived from our audited consolidated financial statements not included in this Annual Report on Form 10-K. The selected consolidated financial data below should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this report. Our historical results are not necessarily indicative of the results that may be expected in any future period.

	Fiscal Year Ended				
	2017	2018	2019	2020	2021
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenue:					
Product	$ 614,458	$ 834,454	$ 1,075,586	$ 1,238,654	$ 1,144,098
Subscription services	124,713	190,308	284,238	404,786	540,081
Total revenue	739,171	1,024,762	1,359,824	1,643,440	1,684,179
Cost of revenue:					
Product (1)	194,150	275,242	352,054	362,970	352,987
Subscription services (1)	58,129	78,539	105,474	146,916	182,268
Total cost of revenue	252,279	353,781	457,528	509,886	535,255
Gross profit	486,892	670,981	902,296	1,133,554	1,148,924
Operating expenses:					
Research and development (1)	245,817	279,196	349,936	433,662	480,467
Sales and marketing (1)	347,695	464,049	584,111	728,022	716,014
General and administrative (1)	84,652	95,170	137,506	163,153	182,477
Restructuring and other (2)	—	—	—	—	30,999
Legal settlement (3)	30,000	—	—	—	—
Total operating expenses	708,164	838,415	1,071,553	1,324,837	1,409,957
Loss from operations	(221,272)	(167,434)	(169,257)	(191,283)	(261,033)
Other income (expense), net	1,627	11,445	(8,016)	(3,383)	(9,127)
Loss before provision for income taxes	(219,645)	(155,989)	(177,273)	(194,666)	(270,160)
Provision for income taxes	1,887	3,889	1,089	6,321	11,916
Net loss	$ (221,532)	$ (159,878)	$ (178,362)	$ (200,987)	$ (282,076)
Net loss per share attributable to common stockholders, basic and diluted	$ (1.14)	$ (0.76)	$ (0.77)	$ (0.79)	$ (1.05)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	194,714	211,609	232,042	252,820	267,824

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

	Fiscal Year Ended				
	2017	2018	2019	2020	2021
	(in thousands)				
Cost of revenue—product	$ 601	$ 1,630	$ 2,951	$ 3,732	$ 4,001
Cost of revenue—subscription services	5,639	9,050	12,378	14,403	14,979
Research and development	63,495	71,229	92,484	107,658	117,220
Sales and marketing	34,317	47,687	66,350	67,560	65,248
General and administrative	12,616	21,077	36,482	33,352	40,896
Total stock-based compensation expense	$ 116,668	$ 150,673	$ 210,645	$ 226,705	$ 242,344

(2) Includes expenses related to restructuring and incremental expenses directly related to COVID-19.
(3) Represents a one-time charge of $30.0 million for a legal settlement with Dell, Inc. in fiscal 2017.

	At the End of Fiscal				
	2017	2018	2019	2020	2021
			(in thousands)		
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$ 183,675	$ 244,057	$ 447,990	$ 362,635	$ 337,147
Marketable securities	362,986	353,289	749,482	936,518	916,388
Working capital	526,043	580,788	1,192,011	1,275,651	1,147,513
Total assets	928,352	1,123,995	1,973,025	2,364,204	2,819,440
Deferred revenue, current and non-current portion	272,963	374,102	535,920	697,288	843,697
Long-term debt	—	—	449,828	477,007	755,814
Total stockholders’ equity	537,201	574,401	737,780	830,118	750,006

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

Investors should read the following discussion and analysis of our financial condition and results of operations together with the section titled “Selected Consolidated Financial Data” and the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in the section titled” Risk Factors” and in other parts of this Annual Report on Form 10-K. See also the section titled “Note Regarding Forward-Looking Statements” in this report. Our fiscal year end is the first Sunday after January 30.

Overview

Data is foundational to our customers' digital transformation and we are focused on delivering innovative and disruptive technology and data storage solutions that enable customers to maximize the value of their data. In our first decade, we completely changed customers' expectations of what they should see from storage arrays and storage vendors, making flash storage widely available to enterprise organizations and revolutionizing the customer experience with our *Evergreen Storage* subscription model that radically simplified and reduced total cost of storage ownership. Today, we are changing the expectations for data and storage management by providing customers a cloud experience with flexible on-demand data services consumption through delivery of a *Modern Data Experience* that empowers organizations to run their operations as a true, automated, storage as-a-service model seamlessly across multiple clouds.

Our solutions support a wide range of structured and unstructured data, at scale and across any data workloads on-premise, in the cloud, or hybrid environments and include mission-critical production, test/development, analytics, disaster recovery, and backup/recovery.

Our *Modern Data Experience* vision begins with our portfolio of products and subscription services that is transforming and modernizing storage operations for our customers. Our *Modern Data Experience* vision extends to an innovative and highly-integrated data platform of products and subscription services, consisting of *Cloud Data Infrastructure* (integrated hardware and software appliances which run in on-premise data centers), *Cloud Data Services* (software services which run natively in major public cloud infrastructures), and *Cloud Data Management* (software hosted data management services to manage our entire platform).

Revenue Drivers

We generate the majority of our revenues from our *Cloud Data Infrastructure*, including *FlashArray* and *FlashBlade,* and subscription services which primarily includes our *Evergreen Storage* subscription, *Pure as-a-Service (PaaS)*, and *Cloud Block Store.*

Portworx Acquisition

In October 2020, we expanded our data services capabilities for containerized, cloud-native applications with the acquisition of Portworx Inc. (Portworx), a privately-held container storage company that provides a Kubernetes data services platform. Cloud-native databases, analytics applications and artificial intelligence (AI) frameworks, such as Cassandra, MongoDB, Postgres, Kafka, Elasticsearch, Spark, and Tensorflow, are the tools upon which customers build their modern data pipelines. By integrating Portworx container data services, which includes storage, data protection, data security and disaster recovery/backup, with our data platforms, this acquisition further enhances our *Modern Data Experience* by expanding our support for these cloud-native applications on any infrastructure, on-premise or in the cloud environment at any scale.

Coronavirus (COVID-19)

The Coronavirus (COVID-19) pandemic, which resulted in authorities implementing preventive measures to contain or mitigate the outbreak of the virus, such as travel bans and restrictions, limitations on business activity, quarantines and shelter-in-place orders continues to have an impact globally. In response to the pandemic, we made some changes to our business at the outset that included instituting a global work-from-home policy beginning in March 2020 that resulted in limited disruptions in our work operations during fiscal 2021. After a brief acceleration of our business from increased demand of mission critical IT needs as customers shifted to work at home and online, we experienced a sharp deceleration as customers assessed both their business prospects and plans for digital transformation. This was then followed by a gradual stabilization in our business during the second half of fiscal 2021 as customers increasingly adapted to the COVID-19 environment. Partially offsetting the headwinds from COVID-19 were reduced operating expenses in the areas of travel and marketing costs. In addition, we effected certain restructuring activities to streamline our operations, such as limited workforce realignments and vacating certain office leases.

We continue to actively monitor, evaluate and respond to developments relating to COVID-19. Since the impact of the pandemic on our operational and financial performance remains highly unpredictable, our past results may not be indicative of future performance. Given the uncertainty, we are unable to predict the full extent and duration of the impact of COVID-19 on customer demand, our global supply chains and our business, operations and financial results. To the extent the pandemic continues to disrupt economic activity globally we, like other businesses, would not be immune at it could adversely affect our business, operations and financial results. See "Risk Factors" in Part I, Item 1A. for additional details.

Change in Fiscal Year End

In September 2019, we adopted a 52/53 week fiscal year consisting of four 13-week quarters ending on the first Sunday after January 30 which for fiscal 2020 was February 2, 2020 and for fiscal 2021 was January 31, 2021. The updated calendar will occasionally include a 14-week fourth quarter, which will first occur in fiscal year 2022, starting on November 1, 2021 and ending on February 6, 2022.

Components of Results of Operations

Revenue

We derive revenue primarily from the sale of our *Cloud Data Infrastructure*, including *FlashArray* and *FlashBlade* products and subscription services which includes our *Evergreen Storage* subscription, and our unified subscription that includes *PaaS* and *Cloud Block Store*. Subscription services also include our professional services offerings such as installation and implementation consulting services.

Provided that all other revenue recognition criteria have been met, we typically recognize product revenue upon transfer of control to our customers and the satisfaction of our performance obligations. Products are typically shipped directly by us to customers, and our channel partners do not stock our inventory. We expect our product revenue may vary from period to period based on, among other things, the timing and size of orders and delivery of products and the impact of significant transactions.

We generally recognize revenue from subscription services ratably over the contractual service period and professional services as delivered. We expect our subscription services revenue to increase and continue to grow faster than our product revenue as more customers choose to consume our technologies as a service and our existing subscription customers renew and expand their consumption and service levels.

Cost of Revenue

Cost of product revenue primarily consists of costs paid to our third-party contract manufacturers, which includes the costs of our raw material components, and personnel costs associated with our manufacturing operations. Personnel costs consist of salaries, bonuses and stock-based compensation expense. Our cost of product revenue also includes allocated overhead costs, inventory write-offs, amortization of intangible assets pertaining to developed technology, and freight. Allocated overhead costs consist of certain employee benefits and facilities-related costs. We expect our cost of product revenue to increase in absolute dollars as our product revenue increases.

Cost of subscription services revenue primarily consists of personnel costs associated with delivering our subscription and professional services, part replacements, allocated overhead costs and depreciation of infrastructure used to deliver our subscription services. We expect our cost of subscription services revenue to increase in absolute dollars, as our subscription services revenue increases.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing and general and administrative expenses. Salaries and personnel-related costs, including stock-based compensation expense, are the most significant component of each category of operating expenses. Operating expenses also include allocated overhead costs for employee benefits and facilities-related costs.

Research and Development. Research and development expenses consist primarily of employee compensation and related expenses, prototype expenses, depreciation associated with assets acquired for research and development, third-party engineering and contractor support costs, as well as allocated overhead. We expect our research and development expense to increase in absolute dollars and it may decrease as a percentage of revenue.

Sales and Marketing. Sales and marketing expenses consist primarily of employee compensation and related expenses, sales commissions, marketing programs, travel and entertainment expenses as well as allocated overhead. Marketing programs consist of advertising, events, corporate communications and brand-building activities. We expect our sales and marketing expense to increase in absolute dollars and it may decrease as a percentage of revenue as we continue to realize efficiencies from scaling our business.

General and Administrative. General and administrative expenses consist primarily of employee compensation and related expenses for administrative functions including finance, legal, human resources, IT and fees for third-party professional services as well as amortization of intangible assets pertaining to defensive technology patents and allocated overhead. We expect our general and administrative expense to increase in absolute dollars and it may decrease as a percentage of revenue.

Other Income (Expense), Net

Other income (expense), net consists primarily of interest income related to cash, cash equivalents and marketable securities, interest expense related to our debt and gains (losses) from foreign currency transactions.

Provision for Income Taxes

Provision for income taxes consists primarily of income taxes in certain foreign jurisdictions in which we conduct business and state income taxes in the United States. We have recorded no U.S. federal current income tax and provided a full valuation allowance for U.S. deferred tax assets, which includes net operating loss carryforwards and tax credits related primarily to research and development. We expect to maintain this full valuation allowance for the foreseeable future as it is more likely than not that the assets will not be realized based on our history of losses.

Results of Operations

The following tables set forth our results of operations for the periods presented in dollars and as a percentage of total revenue (in thousands):

Revenue

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2019	2020	$	%	2020	2021	$	%
(in thousands)								
Product revenue	$ 1,075,586	$ 1,238,654	$ 163,068	15 %	$ 1,238,654	$ 1,144,098	$ (94,556)	(8)%
Subscription services revenue	284,238	404,786	120,548	42 %	404,786	540,081	135,295	33 %
Total revenue	$ 1,359,824	$ 1,643,440	$ 283,616	21 %	$ 1,643,440	$ 1,684,179	$ 40,739	2 %

Total revenue increased in fiscal 2021 by $40.7 million, or 2%, compared to fiscal 2020. The decrease in product revenue during fiscal 2021 compared to fiscal 2020 was largely driven by headwinds caused by the COVID-19 pandemic, despite sales growth from our *FlashBlade* and *FlashArray//C* offerings and purchases from new customers. Our customer base grew from over 7,500 at the end of fiscal 2020 to over 8,700 at the end of fiscal 2021. The increase in subscription services revenue was primarily driven by increases in sales of our *Evergreen Storage* subscription services, and our unified subscription that includes *PaaS* and *Cloud Block Store,* as well as increased recognition of deferred subscription services revenue contracts.

Total revenue increased in fiscal 2020 by $283.6 million, or 21%, compared to fiscal 2019 despite being adversely impacted by significant accelerated declines in prices of certain key components that we use in our solutions. The increase in product revenue during fiscal 2020 compared to fiscal 2019 was driven by multiple factors including increased sales of our new products such as *FlashBlade* and *FlashArray//C*, sales of larger *FlashArray* systems, increases in repeat purchases from existing customers and purchases from new customers. Our customer base grew from over 5,800 at the end of fiscal 2019 to 7,500 at the end of fiscal 2020. The increase in subscription services revenue was primarily driven by increases in sales of our *Evergreen Storage* subscription services, and our unified subscription that includes *PaaS and Cloud Block Store*, as well as increased recognition of deferred subscription services revenue contracts.

During fiscal year 2021 compared to fiscal 2020, total revenue in the United States grew by 1% from $1,184.9 million to $1,195.4 million and total rest of the world revenue grew by 7% from $458.5 million to $488.8 million. During fiscal 2020 compared to fiscal 2019, total revenue in the United States grew by 21% from $979.5 million to $1,184.9 million and total rest of the world revenue grew by 21% from $380.4 million to $458.5 million. For further details on revenues by geography, see Note 16 of Part II, Item 8 of this Annual Report on Form 10-K.

Deferred Revenue

Deferred revenue primarily consists of amounts that have been invoiced but have not yet been recognized as revenue and including performance obligations pertaining to subscription services. The current portion of deferred revenue represents the amounts that are expected to be recognized as revenue within one year of the consolidated balance sheet dates.

Changes in total deferred revenue during the periods presented are as follows (in thousands):

	Fiscal Year Ended	
	2020	2021
Beginning balance	$ 535,920	$ 697,288
Additions	569,816	703,800
Recognition of deferred revenue	(408,448)	(557,391)
Ending balance	$ 697,288	$ 843,697

Revenue recognized during fiscal 2020 and 2021 from deferred revenue at the beginning of each respective period was $267.0 million and $353.1 million.

Remaining Performance Obligations

Total contracted but not recognized revenue was $1,093.5 million at the end of fiscal 2021. Contracted but not recognized revenue consists of both deferred revenue and non-cancelable amounts that are expected to be invoiced and recognized as revenue in future periods. Orders that are contracted but have not been fulfilled and that can be canceled by customers are excluded from remaining performance obligations. Cancellable orders received and not fulfilled at the end of fiscal 2021 have increased compared to the end of fiscal 2020. Of the $1,093.5 million contracted but not recognized revenue at the end of fiscal 2021, we expect to recognize approximately 43% over the next 12 months, and the remainder thereafter.

Cost of Revenue and Gross Margin

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2019	2020	$	%	2020	2021	$	%
(in thousands)								
Product cost of revenue	$ 349,103	$ 359,238	$ 10,135	3 %	$ 359,238	$ 348,986	$ (10,252)	(3)%
Stock based compensation	2,951	3,732	781	26 %	3,732	4,001	269	7 %
Total expenses	$ 352,054	$ 362,970	$ 10,916	3 %	$ 362,970	$ 352,987	$ (9,983)	(3)%
% of Product revenue	33 %	29 %			29 %	31 %		
Subscription services cost of revenue	$ 93,096	$ 132,513	$ 39,417	42 %	$ 132,513	$ 167,289	$ 34,776	26 %
Stock based compensation	12,378	14,403	2,025	16 %	14,403	14,979	576	4 %
Total expenses	$ 105,474	$ 146,916	$ 41,442	39 %	$ 146,916	$ 182,268	$ 35,352	24 %
% of Subscription services revenue	37 %	36 %			36 %	34 %		
Total cost of revenue	$ 457,528	$ 509,886	$ 52,358	11 %	$ 509,886	$ 535,255	$ 25,369	5 %
% of Revenue	34 %	31 %			31 %	32 %		
Product gross margin	67 %	71 %			71 %	69 %		
Subscription services gross margin	63 %	64 %			64 %	66 %		
Total gross margin	66 %	69 %			69 %	68 %		

Cost of revenue increased by $25.4 million, or 5%, for fiscal 2021 compared to fiscal 2020. The decrease in product cost of revenue was primarily attributable to the corresponding decline in product revenue due to headwinds caused by the COVID-19 pandemic, partially offset by increased costs in our manufacturing operations associated with increased headcount and an increase in the amortization of acquired intangible assets. The increase in subscription services cost of revenue was primarily attributable to higher costs in our customer support organization.

The decline in product gross margin for fiscal 2021 compared to fiscal 2020 was primarily attributable to lower component costs for certain key raw materials that we use for our solutions and increased sales of larger *FlashArray* systems in fiscal 2020. The increase in subscription services gross margin for both periods was driven by increased renewals in *Evergreen Storage* subscriptions and increased sales of unified subscription services.

Cost of revenue increased by $52.4 million, or 11%, for fiscal 2020 compared to fiscal 2019. The increase in product cost of revenue was primarily driven by increased sales and, to a lesser extent, by the increased costs in our manufacturing operations associated with increased headcount and an increase in the amortization of intangible assets.

Product cost of revenue and product gross margins during fiscal 2020 benefited from significant price reductions for certain key raw materials that we use for our solutions and sales of our larger *FlashArray* systems. The increase in subscription services cost of revenue was primarily attributable to costs in our customer support organization as this business grows.

Operating Expenses

Research and Development

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2019	2020	$	%	2020	2021	$	%
(in thousands)								
Research and development	$ 257,452	$ 326,004	$ 68,552	27 %	$ 326,004	$ 363,247	$ 37,243	11 %
Stock based compensation	92,484	107,658	15,174	16 %	107,658	117,220	9,562	9 %
Total expenses	$ 349,936	$ 433,662	$ 83,726	24 %	$ 433,662	$ 480,467	$ 46,805	11 %
% of Total revenue	26 %	26 %			26 %	29 %		

Research and development expense increased by $46.8 million, or 11%, during fiscal 2021 compared to fiscal 2020, as we continued to innovate and develop technologies to both enhance and expand our solution portfolio. The increase was primarily driven by a $56.5 million increase in employee compensation and related costs, including a $9.6 million increase in stock-based compensation expense. The remainder of the increase was primarily attributable to a $10.1 million increase in outside services expenses, partially offset by a $22.4 million decrease in depreciation expense primarily due to revising our estimated useful lives of test equipment and certain computer equipment and software during fiscal 2021.

Research and development expense increased by $83.7 million, or 24%, during fiscal 2020 compared to fiscal 2019, as we continued to innovate and develop technologies to both enhance and expand our solution portfolio. The increase was primarily driven by a $70.9 million increase in employee compensation and related costs, including a $15.2 million increase in stock-based compensation expense. The remainder of the increase was primarily attributable to a $8.2 million increase in office and facilities related costs, and a $4.4 million increase in outside services expenses.

Sales and Marketing

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2019	2020	$	%	2020	2021	$	%
(in thousands)								
Sales and marketing	$ 517,761	$ 660,462	$ 142,701	28 %	$ 660,462	$ 650,766	$ (9,696)	(1)%
Stock based compensation	66,350	67,560	1,210	2 %	67,560	65,248	(2,312)	(3)%
Total expenses	$ 584,111	$ 728,022	$ 143,911	25 %	$ 728,022	$ 716,014	$ (12,008)	(2)%
% of Total revenue	43 %	44 %			44 %	43 %		

Sales and marketing expense decreased by $12.0 million, or 2%, during fiscal 2021 compared to fiscal 2020, primarily due to a decrease of $63.0 million in marketing and travel spend as a result of the COVID-19 pandemic, partially offset by an increase of $37.7 million in employee compensation and related costs as we continue to invest in certain areas within sales and marketing and expand our international presence, including an $8.2 million increase in sales commission expense. The remainder of the increase was primarily attributable to a $7.2 million increase in outside services expenses and a $4.2 million increase in subscription costs.

Sales and marketing expense increased by $143.9 million, or 25%, during fiscal 2020 compared to fiscal 2019, as we continue to grow our sales force and expand our international presence. The increase was primarily driven by an increase of $115.5 million in employee compensation and related costs, including a $24.5 million increase in sales commission expense. The remainder of the increase was primarily attributable to a $14.6 million increase in travel related costs, a $9.1 million increase in office and facilities related costs, and a $4.3 million increase in marketing and brand awareness program costs.

General and Administrative

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2019	2020	$	%	2020	2021	$	%
(in thousands)								
General and administrative	$ 101,024	$ 129,801	$ 28,777	28 %	$ 129,801	$ 141,581	$ 11,780	9 %
Stock based compensation	36,482	33,352	(3,130)	(9)%	33,352	40,896	7,544	23 %
Total expenses	$ 137,506	$ 163,153	$ 25,647	19 %	$ 163,153	$ 182,477	$ 19,324	12 %
% of Total revenue	10 %	10 %			10 %	11 %		

General and administrative expense increased by $19.3 million, or 12%, during fiscal 2021 compared to fiscal 2020. The increase was primarily driven by an increase of $21.4 million in employee compensation and related costs, including a $7.5 million increase in stock-based compensation expense related, in part, to certain performance restricted stock awards, partially offset by a $3.7 million decrease in office and facilities related costs.

General and administrative expense increased by $25.6 million, or 19%, during fiscal 2020 compared to fiscal 2019. The increase was primarily driven by an increase of $11.4 million in employee compensation and related costs. The remainder of the increase was primarily attributable to a $8.0 million increase in office and facilities related costs and an increase of $5.1 million in outside services expenses. The decrease in stock-based compensation was primarily due to lower expense recognized related to certain performance restricted stock awards and increased forfeitures.

Restructuring and Other

	Fiscal Year Ended		Change	Fiscal Year Ended		Change
	2019	2020	$	2020	2021	$
(in thousands)						
Restructuring and other	$ —	$ —	$ —	$ —	$ 30,999	$ 30,999
% of Total revenue	— %	— %		— %	2 %	

During fiscal 2021, we incurred incremental costs of $8.9 million directly related to the COVID-19 pandemic. These costs primarily included the write-off of marketing commitments no longer deemed to have value for the remainder of the fiscal year and estimated non-recoverable costs for internal events that could not be held. In addition, we expensed $9.9 million relating to the cease use of certain lease facilities and recognized $12.2 million in one-time involuntary termination benefit costs related to workforce realignment plans.

Other Income (Expense), Net

	Fiscal Year Ended		Change	Fiscal Year Ended		Change
	2019	2020	$	2020	2021	$
(in thousands)						
Other income (expense), net	$ (8,016)	$ (3,383)	$ 4,633	$ (3,383)	$ (9,127)	$ (5,744)
% of Total revenue	(1)%	— %		— %	(1)%	

Other income (expense), net decreased during fiscal 2021 compared to fiscal 2020 primarily attributable to a decrease in interest income of $9.8 million from our cash, cash equivalents and marketable securities resulting from lower interest rate environment and, to a lesser extent, higher interest expense due to borrowings under our revolving line of credit, partially offset by a $6.0 million reduction in net foreign exchange losses.

Other income (expense), net increased during fiscal 2020 compared to fiscal 2019 primarily attributable to an increase in interest income of $9.2 million from our cash, cash equivalents and marketable securities and a $1.8 million reduction in net foreign exchange losses, partially offset by an increase in interest expense of $6.3 million related to our convertible senior notes (Notes).

Provision for Income Taxes

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2019	2020	$	%	2020	2021	$	%
(in thousands)								
Provision for income taxes	$ 1,089	$ 6,321	$ 5,232	480 %	$ 6,321	$ 11,916	$ 5,595	89 %
% of Total revenue	— %	— %			— %	1 %		

The provision for income taxes increased during fiscal 2021 compared to fiscal 2020 primarily attributable to an increase in foreign income taxes and the release of the valuation allowance related to unrealized gains on available-for-sale securities from fiscal 2020.

The provision for income taxes increased during fiscal 2020 compared to fiscal 2019 primarily attributable to the fiscal 2019 U.S. valuation allowance release of $3.7 million related to the StorReduce acquisition and higher foreign income taxes during fiscal 2020.

Quarterly Results of Operations

The following sets forth selected unaudited quarterly consolidated statements of operations data for each of the eight quarters in the period ended January 31, 2021, as well as the percentage that each line item represents of our revenue for each quarter. The information for each of these quarters has been prepared on a basis consistent with our audited annual consolidated financial statements included elsewhere in this report and, in the opinion of management, includes all adjustments of a normal, recurring nature that are necessary for the fair presentation of the results of operations for these periods in accordance with generally accepted accounting principles in the United States. This data should be read in conjunction with our audited consolidated financial statements and related notes included elsewhere in this report. These historical quarterly operating results are not necessarily indicative of the results that may be expected for a full fiscal year or any future period.

	Fiscal Quarter Ended							
	April 30, 2019	July 31, 2019	October 31, 2019	February 2, 2020	May 3, 2020	August 2, 2020	November 1, 2020	January 31, 2021
	(unaudited, in thousands)							
Consolidated Statements of Operations Data:								
Revenue:								
Product	$ 238,741	$ 300,128	$ 323,268	$ 376,517	$ 246,939	$ 272,309	$ 274,470	$ 350,380
Subscription services	87,959	96,199	105,141	115,487	120,180	131,414	136,149	152,338
Total revenue	326,700	396,327	428,409	492,004	367,119	403,723	410,619	502,718
Cost of revenue:								
Product (1)	76,592	92,870	89,998	103,510	69,285	84,731	86,661	112,310
Subscription services (1)	33,721	35,138	37,773	40,284	41,009	44,266	47,442	49,551
Total cost of revenue	110,313	128,008	127,771	143,794	110,294	128,997	134,103	161,861
Gross profit	216,387	268,319	300,638	348,210	256,825	274,726	276,516	340,857
Operating expenses:								
Research and development (1)	105,075	107,020	106,663	114,904	112,446	114,652	122,981	130,388
Sales and marketing (1)	166,626	186,188	184,819	190,389	173,433	171,434	172,282	198,865
General and administrative (1)	42,110	40,016	37,416	43,611	41,125	44,471	46,467	50,414
Restructuring and other (2)	—	—	—	—	14,702	8,288	—	8,009
Total operating expenses	313,811	333,224	328,898	348,904	341,706	338,845	341,730	387,676
Loss from operations	(97,424)	(64,905)	(28,260)	(694)	(84,881)	(64,119)	(65,214)	(46,819)
Other income (expense), net	(1,816)	(652)	9	(924)	(3,416)	1,603	(4,887)	(2,427)
Loss before provision for income taxes	(99,240)	(65,557)	(28,251)	(1,618)	(88,297)	(62,516)	(70,101)	(49,246)
Provision for income taxes	1,096	461	1,731	3,033	2,297	2,451	4,121	3,047
Net loss	$ (100,336)	$ (66,018)	$ (29,982)	$ (4,651)	$ (90,594)	$ (64,967)	$ (74,222)	$ (52,293)

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

	Fiscal Quarter Ended							
	April 30, 2019	July 31, 2019	October 31, 2019	February 2, 2020	May 3, 2020	August 2, 2020	November 1, 2020	January 31, 2021
	(unaudited, in thousands)							
Cost of revenue—product	$ 977	$ 954	$ 912	$ 889	$ 996	$ 990	$ 1,027	$ 988
Cost of revenue—subscription services	3,951	3,633	3,517	3,302	3,392	3,686	3,883	4,018
Research and development	27,835	27,164	25,933	26,726	28,711	29,839	29,220	29,450
Sales and marketing	18,314	16,055	16,802	16,389	16,272	16,848	14,898	17,230
General and administrative	10,670	8,654	5,171	8,857	9,323	10,089	10,581	10,903
Total stock-based compensation	$ 61,747	$ 56,460	$ 52,335	$ 56,163	$ 58,694	$ 61,452	$ 59,609	$ 62,589

(2) Includes expenses related to restructuring and incremental expenses directly related to COVID-19.

	Fiscal Quarter Ended							
	April 30, 2019	July 31, 2019	October 31, 2019	February 2, 2020	May 3, 2020	August 2, 2020	November 1, 2020	January 31, 2021
	(unaudited)							
Percentage of Revenue Data:								
Revenue:								
Product	73 %	76 %	75 %	77 %	67 %	67 %	67 %	70 %
Subscription services	27	24	25	23	33	33	33	30
Total revenue	100	100	100	100	100	100	100	100
Cost of revenue:								
Product	24	23	21	21	19	21	21	22
Subscription services	10	9	9	8	11	11	12	10
Total cost of revenue	34	32	30	29	30	32	33	32
Gross margin	66	68	70	71	70	68	67	68
Operating expenses:								
Research and development	32	27	25	23	31	28	30	26
Sales and marketing	51	47	43	39	47	43	42	39
General and administrative	13	10	9	9	11	11	11	10
Restructuring and other	—	—	—	—	4	2	—	2
Total operating expenses	96	84	77	71	93	84	83	77
Loss from operations	(30)	(16)	(7)	—	(23)	(16)	(16)	(9)
Other income (expense), net	—	(1)	—	—	(1)	—	(1)	—
Loss before provision for income taxes	(30)	(17)	(7)	—	(24)	(16)	(17)	(9)
Provision for income taxes	1	—	—	1	1	—	1	1
Net loss	(31)%	(17)%	(7) %	(1) %	(25)%	(16) %	(18) %	(10) %

Liquidity and Capital Resources

At the end of fiscal 2021, we had cash, cash equivalents and marketable securities of $1,253.5 million. Our cash and cash equivalents primarily consist of bank deposits and money market accounts. Our marketable securities generally consist of highly rated debt instruments of the U.S. government and its agencies, debt instruments of highly rated corporations, debt instruments issued by foreign governments, and asset-backed securities.

We believe our existing cash, cash equivalents and marketable securities will be sufficient to fund our operating and capital needs for at least the next 12 months. Our future capital requirements will depend on many factors including our sales growth, the timing and extent of spending to support development efforts, the expansion of sales and marketing and international operation activities, the addition or closure of office space, the timing of new product introductions and the continuing market acceptance of our products and services, the volume and timing of our share repurchases, the timing and settlement election of the Notes, and any potential impacts of the COVID-19 pandemic on our business which has resulted in reduced sales and certain of our customers or partners being unable to timely fulfill their payment obligations to us. We may continue to enter into arrangements to acquire or invest in complementary businesses, services and technologies, including intellectual property rights. For example, we acquired Portworx for $352.9 million in October 2020. We may seek additional equity or debt financing in the future.

Revolving Credit Facility

In August 2020, we entered into a Credit Agreement with a consortium of financial institutions and lenders that provides for a five-year, senior secured revolving credit facility of $300.0 million (Credit Facility). Proceeds from the Credit Facility may be used for general corporate purposes and working capital. The Credit Facility expires, absent default or early termination by us, on the earlier of (i) August 24, 2025 or (ii) 91 days prior to the stated maturity of the convertible senior notes unless, on such date and each subsequent day until the convertible senior notes are paid in full, the sum of our cash, cash equivalents and marketable securities and the aggregate unused commitments then available to us exceed $625.0 million. The annual interest rates applicable to loans under the Credit Facility are, at our option, equal to either a base rate plus a margin ranging from 0.50% to 1.25% or LIBOR (based on one, three, or six-month interest periods), subject to a floor of 0%, plus a margin ranging from 1.50% to 2.25%. Interest on revolving loans is payable quarterly in arrears with respect to loans based on the base rate and at the end of an interest period in the case of loans based on LIBOR (or at each three-month interval, if the interest period is longer than three months). We are also required to pay a commitment fee on the unused portion of the commitments ranging from 0.25% to 0.40% per annum, payable quarterly in arrears that commenced on September 30, 2020. Loans under the Credit Facility are collateralized by substantially all of our assets and subject to certain restrictions and two financial ratios measured as of the last day of each fiscal quarter, commencing with the fiscal quarter ending January 31, 2021: a Consolidated Leverage Ratio not to exceed 4.5:1 and an Interest Coverage Ratio not to be less than 3:1.

In September 2020, we drew down $250.0 million under the Credit Facility to fund the acquisition of Portworx which remained outstanding at the end of fiscal 2021. The outstanding loan bore weighted-average interest at the one-month LIBOR of approximately 1.65%. Assuming interest rates remain relatively constant and no repayment, we expect our annual interest expense for the outstanding borrowing under the revolver to be approximately $4.1 million. We were in compliance with all covenants under the Credit Facility at the end of fiscal 2021.

Letters of Credit

At the end of fiscal 2020 and 2021, we had outstanding letters of credit in the aggregate amount of $11.5 million and $6.7 million in connection with our facility leases. The letters of credit are collateralized by restricted cash and mature on various dates through August 2029.

Convertible Senior Notes

In April 2018, we issued $575.0 million of 0.125% convertible senior notes due 2023 (the Notes), in a private placement and received proceeds of $562.1 million, after deducting the underwriters' discounts and commissions. The Notes are unsecured obligations that do not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries. The Notes mature on April 15, 2023 unless repurchased or redeemed by us or converted in accordance with their terms prior to the maturity date. The Notes are convertible for up to 21,884,155 shares of our common stock at an initial conversion rate of approximately 38.0594 shares of common stock per $1,000 principal amount, which is equal to an initial conversion price of approximately $26.27 per share of common stock, subject to adjustment.

Holders may surrender their Notes for conversion at their option at any time prior to the close of business on the business day immediately preceding October 15, 2022, only under specific circumstances. On or after October 15, 2022 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their Notes at any time regardless of the foregoing conditions. Upon conversion, holders will receive cash, shares of our common stock, or a combination of cash and shares of our common stock, at our election. We intend to settle the principal of the Notes in cash. See further discussion in Note 7 in Part II, Item 8 of this report.

Share Repurchase Program

In August 2019, our board of directors approved a stock repurchase program to repurchase up to $150.0 million of our common stock, which was substantially completed in the fourth quarter of fiscal 2021. In February 2021, our board of directors authorized the repurchase of up to an additional $200.0 million of our common stock. The authorization allows us to repurchase shares of our common stock opportunistically and will be funded from available working capital. Repurchases may be made at management’s discretion from time to time on the open market through privately negotiated transactions, transactions structured through investment banking institutions, block purchase techniques, 10b5-1 trading plans, or a combination of the foregoing. The share repurchase program does not obligate us to acquire any of our common stock, has no end date, and may be suspended or discontinued by us at any time without prior notice. During fiscal 2020, we repurchased and retired 867,657 shares of common stock at an average purchase price of $17.29 per share for an aggregate repurchase price of $15.0 million. During fiscal 2021, we repurchased and retired 9,526,556 shares of common stock at an average purchase price of $14.17 per share for an aggregate repurchase price of $135.0 million.

The following table summarizes our cash flows for the periods presented (in thousands):

	Fiscal Year Ended		
	2019	**2020**	**2021**
Net cash provided by operating activities	$ 164,423	$ 189,574	$ 187,641
Net cash used in investing activities	(511,344)	(324,711)	(418,109)
Net cash provided by financing activities	551,914	49,246	200,237

Operating Activities

Net cash provided by operating activities during fiscal 2021 was primarily driven by cash collections from sales of our product and subscription services including certain invoices with extended payment terms and deferral of the employer portion of social security payroll tax under the CARES Act, partially offset by payments to our contract manufacturers, employee compensation, and general corporate operating expenditures.

Net cash provided by operating activities during fiscal 2019 and 2020 was primarily driven by cash collections related to the sales of our product and subscription services, partially offset by payments to our contract manufacturers, employee compensation, and general corporate operating expenditures.

Investing Activities

Net cash used in investing activities during fiscal 2021 of $418.1 million was driven by net cash paid for our acquisition of Portworx of $339.6 million in October 2020, and capital expenditures of $95.0 million, partially offset by net sales of marketable securities of $21.5 million.

Net cash used in investing activities during fiscal 2020 of $324.7 million resulted from net purchases of marketable securities of $176.3 million, capital expenditures of $87.8 million, and net cash paid for acquisitions of $51.6 million, and intangible assets acquired of $9.0 million.

Net cash used in investing activities during fiscal 2019 of $511.3 million resulted primarily from net purchases of marketable securities of $392.2 million, capital expenditures of $100.2 million and net cash paid for our acquisition of StorReduce of $13.9 million.

Financing Activities

Net cash provided by financing activities of $200.2 million during fiscal 2021 was primarily driven by $251.9 million of net proceeds from borrowings primarily under our revolving line of credit, $59.4 million of proceeds from the exercise of stock options, and $32.4 million of proceeds from issuance of common stock under our employee stock purchase plan (ESPP), partially offset by share repurchases of $135.2 million, and $8.3 million in tax withholdings on vesting of equity awards.

Net cash provided by financing activities of $49.2 million during fiscal 2020 was due to $43.3 million of proceeds from issuance of common stock under our ESPP and $42.9 million of proceeds from the exercise of stock options, partially offset by repurchases of our common stock for $15.0 million under the share repurchase program, the repayment of $11.6 million of debt assumed in connection with our acquisition of Compuverde, and $10.4 million in tax withholdings on vesting of restricted stock.

Net cash provided by financing activities of $551.9 million during fiscal 2019 was primarily due to $562.1 million of net proceeds from the issuance of the Notes, $47.8 million of proceeds from the exercise of stock options and $33.4 million of proceeds from issuance of common stock under our ESPP, partially offset by payment for the purchase of capped calls of $64.6 million, the repurchase of our common stock for $20.0 million in connection with the Notes and the repayment of $6.1 million of debt assumed in connection with our acquisition of StorReduce.

Contractual Obligations and Commitments

The following table sets forth our non-cancelable contractual obligations and commitments at the end of fiscal 2021.

	Payment Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
			(in thousands)		
Debt obligations (1)	$ 851,604	$ 6,322	$ 587,075	$ 258,207	$ —
Operating leases (2)	179,082	40,110	68,311	46,290	24,371
Purchase obligations (3)	251,761	178,104	67,890	5,767	—
Total	$ 1,282,447	$ 224,536	$ 723,276	$ 310,264	$ 24,371

(1) Consists of (i) principal and interest payments on our convertible senior notes due 2023, (ii) principal, interest, and unused commitment fees on our August 2020 revolving credit facility based on debt outstanding and rates in effect at January 31, 2021, and (iii) principal and interest on a five year loan.
(2) Represents aggregate future minimum lease payments under non-cancelable operating leases.
(3) Includes primarily non-cancellable inventory purchase commitments, software service and sponsorship contracts, and hosting arrangements.

Purchase orders are not included in the table above as they represent authorizations to purchase rather than binding agreements. The contractual commitment amounts in the table above are associated with agreements that are enforceable and legally binding. Obligations under contracts that we can cancel without a significant penalty are not included in the table above.

In April 2018, we issued $575.0 million of 0.125% convertible senior notes due 2023 in a private placement and received proceeds of $562.1 million, after deducting the underwriters' discounts and commissions. The Notes are unsecured obligations that do not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries. In September 2020, we drew down $250.0 million under a five-year, senior secured $300.0 million revolving credit facility which remained outstanding at the end of fiscal 2021. See further discussion in Note 7 in Part II, Item 8 of this annual report.

Off-Balance Sheet Arrangements

Through the end of fiscal 2021, we did not have any relationships with any entities or financial partnerships, such as structured finance or special purpose entities established for the purpose of facilitating off-balance sheet arrangements or other purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles (GAAP). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

The critical accounting estimates, assumptions and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

We generate revenue primarily from two sources: (1) product revenue which includes hardware and embedded software and (2) subscription services revenue which includes *Evergreen Storage* subscriptions, our unified subscription that includes *Pure as-a-Service* and *Cloud Block Store*.

Our product revenue is derived from the sale of integrated storage hardware and operating system software. We typically recognize product revenue upon transfer of control to our customers. Products are typically shipped directly by us to customers.

Our subscription services revenue is derived from the services we perform in connection with the sale of subscription services and is recognized ratably over the contractual term, which generally ranges from one to six years. The majority of our product solutions are sold with an *Evergreen Storage* subscription service agreement, which typically commences upon transfer of control of the corresponding products to our customers. Costs for subscription services are expensed when incurred. In addition, our *Evergreen Storage* subscription provides our customers with a new controller based upon certain contractual terms. The controller refresh represents a separate performance obligation that is included within the *Evergreen Storage* subscription service agreement and the allocated revenue is recognized upon shipment of the controller.

Our subscription services also include the right to receive unspecified software updates and upgrades on a when-and-if-available basis, software bug fixes, replacement parts and other services related to the underlying infrastructure, as well as access to our cloud-based management and support platform. We also sell professional services such as installation and implementation consulting services and the related revenue is recognized as services are performed.

We recognize revenue upon the transfer of promised goods or services to customers in an amount that reflects the consideration we expect to be entitled in exchange for those goods or services. This is achieved through applying the following five-step approach:

- *Identification of the contract, or contracts, with a customer*
- *Identification of the performance obligations in the contract*
- *Determination of the transaction price*
- *Allocation of the transaction price to the performance obligations in the contract*
- *Recognition of revenue when, or as, we satisfy a performance obligation*

When applying this five-step approach, we apply judgment in determining the customer's ability and intention to pay, which is based on a variety of factors including the customer's historical payment experience and/or published credit and financial information pertaining to the customer. To the extent a customer contract includes multiple promised goods or services, we determine whether promised goods or services should be accounted for as a separate performance obligation. The transaction price is determined based on the consideration which we will be entitled to in exchange for transferring goods or services to the customer. We allocate the transaction price to each performance obligation for contracts that contain multiple performance obligations based on a relative standalone selling price which is determined based on the price at which the performance obligation is sold separately, or if not observable through past transactions, is estimated taking into account available information such as market conditions and internally approved pricing guidelines related to performance obligations.

Business Combinations, Goodwill and Acquisition-Related Intangible Assets

We allocate the purchase price to the intangible and tangible assets acquired and liabilities assumed in a business combination at their estimated fair values on the date of acquisition, with the excess recorded to goodwill. We use our best estimates and assumptions to assign fair value to the assets acquired and liabilities assumed as well as the useful lives of the acquired intangible assets. Examples of critical estimates in valuing certain intangible assets we have acquired include, but are not limited to, future expected cash flows, expected technology life cycle, attrition rates of customers, and discount rates. We estimate the useful lives of each intangible asset based on the expected period over which we anticipate generating economic benefit from the asset. The amounts and useful lives assigned to acquired intangible assets impact the amount and timing of future amortization expense.

While we use our best estimates and assumptions as part of the purchase price allocation process to value assets acquired and liabilities assumed, these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the estimated fair value of the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to the consolidated statements of operations.

We use estimates, assumptions, and judgments when assessing the recoverability of goodwill and acquisition-related intangible assets. We test for impairment on an annual basis, or more frequently if a significant event or circumstance indicates the carrying amounts may not be recoverable. We also evaluate the estimated remaining useful lives of acquisition-related intangible assets for changes in circumstances that warrant a revision to the remaining periods of amortization. If the useful life of the intangible asset is shorter than originally estimated, we accelerate the rate of amortization and amortize the remaining carrying value over the new shorter useful life.

Recent Accounting Pronouncements

Refer to “Recent Accounting Pronouncements” in Note 2 of our Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

We have operations both within the United States and internationally, and we are exposed to market risk in the ordinary course of our business.

Interest Rate Risk

Our cash, cash equivalents and marketable securities primarily consist of bank deposits and money market accounts, highly rated debt instruments of the U.S. government, its agencies, debt instruments of highly rated corporations, debt instruments issued by foreign governments, and asset-backed securities. At the end of fiscal 2020 and 2021, we had cash, cash equivalents and marketable securities of $1,299.2 million and $1,253.5 million. The carrying amount of our cash equivalents reasonably approximates fair value, due to the short maturities of these instruments. The primary objectives of our investment activities are the preservation of capital, the fulfillment of liquidity needs and the fiduciary control of cash and investments. We do not enter into investments for trading or speculative purposes. Our investments are exposed to market risk due to fluctuation in interest rates, which may affect our interest income and the fair value of our investments.

We considered the historical volatility of short-term interest rates and determined that it was reasonably possible that an adverse change of 100 basis points could be experienced in the near term. A hypothetical 1.00% (100 basis points) increase in interest rates would have resulted in a decrease in the fair value of our marketable securities of approximately $10.7 million as of the end of fiscal 2021.

Foreign Currency Exchange Risk

Our sales contracts are primarily denominated in U.S. dollars with a proportionally small number of contracts denominated in foreign currencies. A portion of our operating expenses are incurred outside the United States and denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the British pound and Euro. Additionally, fluctuations in foreign currency exchange rates may cause us to recognize transaction gains and losses in our statement of operations. Given the impact of foreign currency exchange rates has not been material to our historical operating results, we have not entered into any derivative or hedging transactions, but we may do so in the future if our exposure to foreign currency exchange should become more significant.

We considered the historical trends in currency exchange rates and determined that it was reasonably possible that adverse changes in exchange rates of 10% for all currencies could be experienced in the near term. These reasonably possible adverse changes in exchange rates of 10% were applied to total monetary assets and liabilities denominated in currencies other than U.S. dollar at the end of fiscal 2021 to compute the adverse impact these changes would have had on our loss before income taxes in the near term. These changes would have resulted in an adverse impact on loss before provision for income taxes of approximately $6.9 million at the end of fiscal 2021.

Item 8. Financial Statements and Supplementary Data.

PURE STORAGE, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Pure Storage, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Pure Storage, Inc. and its subsidiaries (the "Company") as of February 2, 2020 and January 31, 2021, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows, for each of the three years in the period ended January 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of February 2, 2020 and January 31, 2021, and the results of its operations and its cash flows for each of the three years in the period ended January 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of January 31, 2021, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 24, 2021 expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Business Combinations—Valuation of Acquired Intangible Assets —Refer to Notes 2, 4, and 5 to the financial statements.

Critical Audit Matter Description

In October 2020, the Company completed the acquisition of Portworx Inc. ("Portworx"). The Company accounted for the acquisition under the acquisition method of accounting for business combinations. Accordingly, the purchase price was allocated to the assets acquired and liabilities assumed based on their respective estimated fair values, including identified intangible assets of $31.4 million related to developed technology, customer relationships, and trade name. The determination of the fair value of the intangible assets required management to make significant estimates and assumptions related to forecasted revenue growth.

We identified valuation of the intangible assets as a critical audit matter because of the significant judgments related to forecast revenue growth made by management to estimate its fair value. Considering the limited historical sales information, this required a high degree of auditor judgment and an increase extent of effort when performing audit procedures to evaluate the reasonableness of management’s estimates and assumptions related to forecasted revenue growth.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the forecasted revenue growth included the following, among others:

- We tested the effectiveness of controls over the valuation of the acquired intangible assets, which included the review of key inputs such as forecasted revenue growth.
- We evaluated the reasonableness of management’s forecasted revenue growth by performing a comparison of the forecasted revenue against various sources, including:
  - Forecasted information for certain peer companies;
  - Industry data and analyst reports; and
  - Internal communications to management and the Board of Directors.

/s/ Deloitte & Touche LLP

San Jose, California
March 24, 2021

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Pure Storage, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Pure Storage, Inc. and subsidiaries (the "Company") as of January 31, 2021, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 31, 2021, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended January 31, 2021, of the Company and our report dated March 24, 2021, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Deloitte & Touche LLP

San Jose, California
March 24, 2021

PURE STORAGE, INC.

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

	At the End of Fiscal	
	2020	2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 362,635	$ 337,147
Marketable securities	936,518	916,388
Accounts receivable, net of allowance of $542 and $1,033	458,643	460,879
Inventory	38,518	46,733
Deferred commissions, current	37,148	57,183
Prepaid expenses and other current assets	56,930	89,836
Total current assets	1,890,392	1,908,166
Property and equipment, net	122,740	163,041
Operating lease right-of-use assets	112,854	134,668
Deferred commissions, non-current	102,056	130,741
Intangible assets, net	58,257	76,648
Goodwill	37,584	358,736
Restricted cash	15,287	10,544
Other assets, non-current	25,034	36,896
Total assets	$ 2,364,204	$ 2,819,440
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 77,651	$ 67,530
Accrued compensation and benefits	106,592	160,817
Accrued expenses and other liabilities	47,223	61,754
Operating lease liabilities, current	27,264	32,231
Deferred revenue, current	356,011	438,321
Total current liabilities	614,741	760,653
Long-term debt	477,007	755,814
Operating lease liabilities, non-current	92,977	120,361
Deferred revenue, non-current	341,277	405,376
Other liabilities, non-current	8,084	27,230
Total liabilities	1,534,086	2,069,434
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, par value of $0.0001 per share— 20,000 shares authorized; no shares issued and outstanding	—	—
Class A and Class B common stock, par value of $0.0001 per share— 2,250,000 (Class A 2,000,000, Class B 250,000) shares authorized; 264,008 and 278,363 Class A shares issued and outstanding	26	28
Additional paid-in capital	2,107,579	2,307,580
Accumulated other comprehensive income	5,449	7,410
Accumulated deficit	(1,282,936)	(1,565,012)
Total stockholders' equity	830,118	750,006
Total liabilities and stockholders' equity	$ 2,364,204	$ 2,819,440

See the accompanying notes to the consolidated financial statements.

PURE STORAGE, INC.

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

	Fiscal Year Ended		
	2019	2020	2021
Revenue:			
Product	$ 1,075,586	$ 1,238,654	$ 1,144,098
Subscription services	284,238	404,786	540,081
Total revenue	1,359,824	1,643,440	1,684,179
Cost of revenue:			
Product	352,054	362,970	352,987
Subscription services	105,474	146,916	182,268
Total cost of revenue	457,528	509,886	535,255
Gross profit	902,296	1,133,554	1,148,924
Operating expenses:			
Research and development	349,936	433,662	480,467
Sales and marketing	584,111	728,022	716,014
General and administrative	137,506	163,153	182,477
Restructuring and other	—	—	30,999
Total operating expenses	1,071,553	1,324,837	1,409,957
Loss from operations	(169,257)	(191,283)	(261,033)
Other income (expense), net	(8,016)	(3,383)	(9,127)
Loss before provision for income taxes	(177,273)	(194,666)	(270,160)
Provision for income taxes	1,089	6,321	11,916
Net loss	$ (178,362)	$ (200,987)	$ (282,076)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.77)	$ (0.79)	$ (1.05)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	232,042	252,820	267,824

See the accompanying notes to the consolidated financial statements.

PURE STORAGE, INC.

Consolidated Statements of Comprehensive Loss
(in thousands)

	Fiscal Year Ended		
	2019	**2020**	**2021**
Net loss	$ (178,362)	$ (200,987)	$ (282,076)
Other comprehensive income, net of tax:			
Unrealized net gains on available-for-sale securities	1,562	6,510	3,213
Reclassification adjustment for net (gains) losses on available-for-sale securities included in net loss	17	(723)	(1,252)
Change in unrealized net gains on available-for-sale securities	1,579	5,787	1,961
Comprehensive loss	$ (176,783)	$ (195,200)	$ (280,115)

See the accompanying notes to consolidated financial statements.

PURE STORAGE, INC.

Consolidated Statements of Stockholders' Equity
(in thousands)

	Common Stock										
	Shares		Amount		Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)		Accumulated Deficit		Total Stockholders' Equity
Balance at the end of fiscal 2018	220,979	$	22	$	1,479,883	$	(1,917)	$	(903,587)	$	574,401
Issuance of common stock upon exercise of stock options	9,397		1		47,749		—		—		47,750
Stock-based compensation expense	—		—		210,645		—		—		210,645
Vesting of early exercised stock options	—		—		320		—		—		320
Vesting of restricted stock units	8,378		1		(1)		—		—		—
Net issuance of restricted stock	2,398		—		—		—		—		—
Tax withholding on vesting of restricted stock	—		—		(632)		—		—		(632)
Common stock issued under employee stock purchase plan	3,381		—		33,444		—		—		33,444
Repurchase of common stock	(1,009)		—		(20,000)		—		—		(20,000)
Purchase of capped calls	—		—		(64,630)		—		—		(64,630)
Equity component of convertible senior notes, net	—		—		133,265		—		—		133,265
Other comprehensive income	—		—		—		1,579		—		1,579
Net loss	—		—		—		—		(178,362)		(178,362)
Balance at the end of fiscal 2019	243,524	$	24	$	1,820,043	$	(338)	$	(1,081,949)	$	737,780
Issuance of common stock upon exercise of stock options	7,770		1		42,930		—		—		42,931
Stock-based compensation expense	—		—		226,705		—		—		226,705
Vesting of restricted stock units	9,215		1		(1)		—		—		—
Net issuance of restricted stock	624		—		—		—		—		—
Tax withholding on vesting of restricted stock	—		—		(10,379)		—		—		(10,379)
Common stock issued under employee stock purchase plan	3,743		—		43,298		—		—		43,298
Repurchases of common stock	(868)		—		(15,017)		—		—		(15,017)
Other comprehensive income	—		—		—		5,787		—		5,787
Net loss	—		—		—		—		(200,987)		(200,987)
Balance at the end of fiscal 2020	264,008	$	26	$	2,107,579	$	5,449	$	(1,282,936)	$	830,118
Issuance of common stock upon exercise of stock options	9,734		1		59,509		—		—		59,510
Stock-based compensation expense	—		—		242,685		—		—		242,685
Vesting of restricted stock units	11,241		1		(1)		—		—		—
Cancellation and forfeiture of restricted stock	(317)		—		—		—		—		—
Tax withholding on vesting of equity awards	(490)		—		(8,258)		—		—		(8,258)
Common stock issued under employee stock purchase plan	3,714		—		32,439		—		—		32,439
Repurchases of common stock	(9,527)		—		(135,175)		—		—		(135,175)
Equity awards assumed in an acquisition	—		—		8,802		—		—		8,802
Other comprehensive income	—		—		—		1,961		—		1,961
Net loss	—		—		—		—		(282,076)		(282,076)
Balance at the end of fiscal 2021	278,363	$	28	$	2,307,580	$	7,410	$	(1,565,012)	$	750,006

See the accompanying notes to the consolidated financial statements.

PURE STORAGE, INC.

Consolidated Statements of Cash Flows
(in thousands)

	Fiscal Year Ended		
	2019	2020	2021
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	$ (178,362)	$ (200,987)	$ (282,076)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	70,878	89,710	70,042
Amortization of debt discount and debt issuance costs	21,031	27,179	29,070
Stock-based compensation expense	210,645	226,705	242,344
Impairment of long-lived assets	—	—	7,505
Other	(5,039)	1,336	7,340
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accounts receivable, net	(135,649)	(79,442)	410
Inventory	(12,289)	2,393	(8,690)
Deferred commissions	(27,660)	(24,231)	(48,721)
Prepaid expenses and other assets	(6,972)	(16,734)	(33,982)
Operating lease right-of-use assets	—	26,511	28,804
Accounts payable	14,293	(18,856)	(14,364)
Accrued compensation and other liabilities	51,810	20,296	76,972
Operating lease liabilities	—	(25,377)	(27,318)
Deferred revenue	161,737	161,071	140,305
Net cash provided by operating activities	164,423	189,574	187,641
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of property and equipment	(100,246)	(87,847)	(94,975)
Acquisitions, net of cash acquired	(13,899)	(51,594)	(339,641)
Purchase of intangible assets	—	(9,000)	—
Purchases of marketable securities	(665,357)	(795,580)	(573,959)
Sales of marketable securities	19,878	200,251	171,530
Maturities of marketable securities	253,280	419,059	423,936
Other	(5,000)	—	(5,000)
Net cash used in investing activities	(511,344)	(324,711)	(418,109)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net proceeds from exercise of stock options	47,771	42,899	59,339
Proceeds from issuance of common stock under employee stock purchase plan	33,444	43,298	32,439
Proceeds from issuance of convertible senior notes, net of issuance costs	562,062	—	—
Payment for purchase of capped calls	(64,630)	—	—
Proceeds from borrowings, net of issuance costs	—	—	251,892
Repayment of debt assumed from acquisition	(6,101)	(11,555)	—
Tax withholding on vesting of equity awards	(632)	(10,379)	(8,258)
Repurchases of common stock	(20,000)	(15,017)	(135,175)
Net cash provided by financing activities	551,914	49,246	200,237
Net increase (decrease) in cash, cash equivalents and restricted cash	204,993	(85,891)	(30,231)
Cash, cash equivalents and restricted cash, beginning of year	258,820	463,813	377,922
Cash, cash equivalents and restricted cash, end of year	$ 463,813	$ 377,922	$ 347,691
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF YEAR			
Cash and cash equivalents	$ 447,990	$ 362,635	$ 337,147
Restricted cash	$ 15,823	$ 15,287	$ 10,544
Cash, cash equivalents and restricted cash, end of year	$ 463,813	$ 377,922	$ 347,691
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Cash paid for interest	$ 371	$ 718	$ 2,279
Cash paid for income taxes	$ 4,696	$ 4,824	$ 10,522
Cash paid for amounts included in the measurement of lease liabilities	$ —	$ 32,785	$ 36,980
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING INFORMATION			
Property and equipment purchased but not yet paid	$ 13,873	$ 6,814	$ 10,979
Operating lease right-of-use assets obtained in exchange for operating lease liabilities	$ —	$ 14,937	$ 57,471
Acquisition consideration held back to satisfy potential indemnification claims	$ 3,725	$ —	$ —
Vesting of early exercised stock options	$ 320	$ —	$ —
Fair value of equity awards assumed in an acquisition	$ —	$ —	$ 8,802

See the accompanying notes to the consolidated financial statements.

Note 1. Business Overview

Organization and Description of Business

Pure Storage, Inc. (the Company, we, us, or other similar pronouns) was originally incorporated in the state of Delaware in October 2009 under the name OS76, Inc. In January 2010, we changed our name to Pure Storage, Inc. We are headquartered in Mountain View, California and have wholly owned subsidiaries throughout the world.

Data is foundational to our customers' digital transformation and we deliver innovative and disruptive technology and data storage solutions that enable customers to maximize the value of their data.

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and our wholly owned subsidiaries and have been prepared in conformity with accounting principles generally accepted in the United States (U.S. GAAP). All intercompany balances and transactions have been eliminated in consolidation.

Change in Fiscal Year End

In September 2019, we adopted a 52/53 week fiscal year consisting of four 13-week quarters ending on the first Sunday after January 30 which for fiscal 2020 was February 2, 2020 and for fiscal 2021 was January 31, 2021. The updated calendar will occasionally include a 14-week fourth quarter, which will first occur in fiscal 2022, starting on November 1, 2021 and ending on February 6, 2022. Unless otherwise stated, all dates refer to our fiscal years.

Foreign Currency

The functional currency of our foreign subsidiaries is the U.S. dollar. Transactions denominated in currencies other than the functional currency are remeasured to the functional currency at the average exchange rate in effect during the period. At the end of each reporting period, monetary assets and liabilities are remeasured using exchange rates in effect at the balance sheet date. Non-monetary assets and liabilities are remeasured at historical exchange rates. Foreign currency transaction gains and losses are recorded in other income (expense), net in the consolidated statements of operations.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported and disclosed in the financial statements and accompanying notes. Actual results could differ from these estimates and assumptions due to risks and uncertainties, including uncertainty in the current economic environment from the ongoing COVID-19 pandemic. Such estimates include, but are not limited to, the determination of standalone selling price for revenue arrangements with multiple performance obligations, useful lives of intangible assets and property and equipment, the period of benefit for deferred contract costs for commissions, stock-based compensation, provision for income taxes including related reserves, fair value of equity assumed, intangible and tangible assets acquired and liabilities assumed for business combinations. Management bases its estimates on historical experience and on various other assumptions which management believes to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities.

Concentration Risk

Financial instruments that are exposed to concentration of credit risk consist primarily of cash and cash equivalents, marketable securities, and accounts receivable. At the end of fiscal 2020 and 2021, the majority of our cash and cash equivalents have been invested with three financial institutions and such deposits exceed federally insured limits. Management believes that the financial institutions that hold our investments are financially sound and, accordingly, are subject to minimal credit risk. We define a customer as an entity that purchases our products and services from one of our channel partners or from us directly. The majority of our revenue and accounts receivable are derived from the United States across a multitude of industries. We perform ongoing evaluations to determine customer credit. At the end of fiscal 2020 and 2021, no channel partner represented 10% or more of total accounts receivable, net. At the end of fiscal 2020 and 2021, we had one customer that represented 12% and 10% of accounts receivable, net. One channel partner represented 11% of revenue for fiscal 2019. No channel partner represented more than 10% of revenue for fiscal 2020 and 2021. No customer represented 10% or more of revenue for fiscal 2019, 2020 or 2021. We rely on a limited number of contract manufacturers and suppliers of components for our products. In instances where contract manufacturers and suppliers fail to perform their obligations, we may be unable to find alternative contract manufacturers and suppliers or satisfactorily deliver our products to our customers on time.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash in banks and highly liquid investments, primarily money market accounts, purchased with an original maturity of three months or less.

Marketable Securities

We classify our marketable securities as available-for-sale (AFS) at the time of purchase and reevaluate such classification at each balance sheet date. We may sell these securities at any time for use in current operations even if they have not yet reached maturity. As a result, we classify our securities, including those with maturities beyond twelve months, as current assets in the consolidated balance sheets. We carry these securities at estimated fair value and record unrealized gains and losses in accumulated other comprehensive income (loss), which is reflected as a component of stockholders' equity. We evaluate our AFS debt securities with an unamortized cost basis in excess of estimated fair value to determine what amount of that difference, if any, is caused by expected credit losses. Credit-related impairment losses, not to exceed the amount that fair value is less than the amortized cost basis, are recognized through an allowance for credit losses with changes in the allowance for credit losses recognized as a charge to other income (expense), net, in the consolidated statements of operations. Any remaining impairment is included in accumulated other comprehensive income (loss) as a component of stockholders' equity. Realized gains and losses from the sale of marketable securities are determined based on the specific identification method. Realized gains and losses are reported in other income (expense), net in the consolidated statements of operations.

Fair Value of Financial Instruments

The carrying value of our financial instruments, including cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximates fair value.

Accounts Receivable and Allowance

Accounts receivable are recorded at the invoiced amount, and stated at realizable value, net of an allowance for doubtful accounts. Credit is extended to customers based on an evaluation of their financial condition and other factors. We generally do not require collateral or other security to support accounts receivable. We perform ongoing credit evaluations of our customers and maintain an allowance for doubtful accounts.

We assess the collectability of the accounts by taking into consideration the aging of our trade receivables, historical experience, and management judgment. We write off trade receivables against the allowance when management determines a balance is uncollectible and no longer actively pursues collection of the receivable.

The following table presents the changes in the allowance for doubtful accounts:

	Fiscal Year Ended 2019	2020	2021
		(in thousands)	
Allowance for doubtful accounts, beginning balance	$ 1,062	$ 660	$ 542
Provision, net of cash received	(79)	(80)	496
Write-offs	(323)	(38)	(5)
Allowance for doubtful accounts, ending balance	$ 660	$ 542	$ 1,033

Restricted Cash

Restricted cash is comprised of cash collateral for letters of credit related to our leases and for a vendor credit card program. At the end of fiscal 2020 and 2021, we had restricted cash of $15.3 million and $10.5 million.

Inventory

Inventory consists of finished goods and component parts, which are purchased from contract manufacturers. Product demonstration units, which we regularly sell, are the primary component of our inventories. Inventories are stated at the lower of cost or net realizable value. Cost is determined using the specific identification method for finished goods and weighted-average method for component parts. We account for excess and obsolete inventory by reducing the carrying value to the estimated net realizable value of the inventory based upon management's assumptions about future demand and market conditions. In addition, we record a liability for firm, non-cancelable and unconditional purchase commitments with contract manufacturers and suppliers for quantities in excess of future demand forecasts consistent with excess and obsolete inventory valuations. At the end of fiscal 2021, we did not record any liability related to the above. Inventory write-offs were insignificant for fiscal 2019, 2020 and 2021.

Property and Equipment, Net

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is computed using the straight-line method over the estimated useful lives of the respective assets (test equipment—4 years, computer equipment and software—4 years, furniture and fixtures—7 years). Leasehold improvements are amortized over the shorter of their estimated useful lives or the remaining lease term. Depreciation commences once the asset is placed in service.

In accordance with our accounting practices, we review the estimated useful lives of our property and equipment on an ongoing basis. In the first quarter of fiscal 2021, management determined that the estimated useful lives of its test equipment and certain computer equipment and software required revision. The estimated useful lives of test equipment and certain computer equipment and software were revised to 4 years. Previously, the estimated useful lives of these assets ranged from 2 to 3 years. The change in estimated useful lives was accounted for as a change in estimate and recognized on a prospective basis effective February 3, 2020. The effect of this change in estimate resulted in a reduction to depreciation expense of $23.6 million during fiscal 2021.

Business Combinations

We allocate the purchase price to the assets acquired and liabilities assumed based on their estimated fair values. The excess of the purchase price over the fair values of the assets acquired and liabilities assumed is recorded as goodwill. During the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the estimated fair value of the assets acquired and liabilities assumed, with the corresponding offset to goodwill. The results of operations of an acquired business is included in our consolidated financial statements from the date of acquisition. Acquisition-related expenses are expensed as incurred.

Goodwill

Goodwill represents the excess of the purchase price consideration over the estimated fair value of the tangible and intangible assets acquired and liabilities assumed in a business combination. Goodwill is evaluated for impairment annually in the fourth quarter of our fiscal year as a single reporting unit, and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. We may elect to qualitatively assess whether it is more likely than not that the fair value of our reporting unit is less than its carrying value. If we opt not to qualitatively assess, a quantitative goodwill impairment test is performed. The quantitative test compares our reporting unit's carrying amount, including goodwill, to its fair value calculated based on our enterprise value. If the carrying amount exceeds its fair value, an impairment loss is recognized for the excess. We did not recognize any impairment of goodwill in any of the periods presented in the consolidated financial statements.

Purchased Intangible Assets

Purchased intangible assets with finite lives are stated at cost, net of accumulated amortization. We amortize our intangible assets on a straight-line basis over an estimated useful life of three to seven years.

Impairment of Long-Lived Assets

We review our long-lived assets, including property and equipment and finite-lived intangible assets, for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. We measure the recoverability of these assets by comparing the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If the total of the future undiscounted cash flows is less than the carrying amount of an asset, we record an impairment charge for the amount by which the carrying amount of the asset exceeds its fair market value.

Convertible Senior Notes

In accounting for the issuance of our convertible senior notes (the Notes), we separated the Notes into liability and equity components. The carrying amount of the liability component was determined by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was calculated by deducting the fair value of the liability component from the principal amount of the Notes as a whole. The difference between the principal amount of the Notes and the liability component (the debt discount) is amortized to interest expense in the consolidated statements of operations using the effective interest method over the term of the Notes. The equity component of the Notes is included in additional paid-in capital in the consolidated balance sheets and is not remeasured as long as it continues to meet the conditions for equity classification. In accounting for the transaction costs related to the issuance of the Notes, we allocated the total amount incurred to the liability and equity components using the same proportions as the initial carrying value of the Notes. Transaction costs attributable to the liability component were netted with the principal amount of the Notes in the consolidated balance sheets and are being amortized to interest expense in the consolidated statements of operations using the effective interest method over the term of the Notes. Transaction costs attributable to the equity component were netted with the equity component of the Notes in additional paid-in capital in the consolidated balance sheets.

Deferred Commissions

Deferred commissions consist of incremental costs paid to our sales force to obtain customer contracts. Deferred commissions related to product revenue are recognized upon transfer of control to customers and deferred commissions related to subscription services revenue are amortized over an expected useful life of six years. We determine the expected useful life based on an estimated benefit period by evaluating our technology development life cycle, expected customer relationship period and other factors. We classify deferred commissions as current and non-current on our consolidated balance sheets based on the timing of when we expect to recognize the expense. Amortization of deferred commissions is included in sales and marketing expense in the consolidated statements of operations.

Operating Leases

We determine if an arrangement contains a lease at inception. Lease liabilities are recognized at the present value of the future lease payments at commencement date. The interest rate implicit in our operating leases is not readily determinable, and therefore an incremental borrowing rate is estimated to determine the present value of future payments. The estimated incremental borrowing rate factors in a hypothetical interest rate on a collateralized basis with similar terms, payments, and economic environments. The operating lease right-of-use (ROU) asset is determined based on the lease liability initially established and reduced for any prepaid lease payments and any lease incentives. We account for the lease and non-lease components of operating lease contract consideration as a single lease component.

Certain of the operating lease agreements contain rent concession, rent escalation, and option to renew provisions. Rent concession and rent escalation provisions are considered in determining the lease cost. Lease cost is recognized on a straight-line basis over the lease term commencing on the date we have the right to use the leased property. We generally use the base, non-cancelable, lease term when recognizing the lease assets and liabilities, unless it is reasonably certain that an extension or termination option will be exercised.

In addition, certain of our operating lease agreements contain tenant improvement allowances from our landlords. These allowances are accounted for as lease incentives and reduce our ROU asset and lease cost over the lease term.

For short-term leases with lease term no longer than twelve months, and do not include an option to purchase the underlying asset that we are reasonably certain to exercise, we recognize rent expense in our consolidated statements of operations on a straight-line basis over the lease term and record variable lease payments as incurred.

Deferred Revenue

Deferred revenue primarily consists of amounts that have been invoiced but have not yet been recognized as revenue and performance obligations pertaining to subscription services. The current portion of deferred revenue represents the amounts that are expected to be recognized as revenue within one year of the consolidated balance sheet dates.

Revenue Recognition

We generate revenue from two sources: (1) product revenue which includes hardware and embedded software and (2) subscription services revenue which includes *Evergreen Storage* subscriptions, and our unified subscription that includes *Pure as-a-Service* and *Cloud Block Store*.

Our product revenue is derived from the sale of integrated storage hardware and operating system software. We typically recognize product revenue upon transfer of control to our customers. Products are typically shipped directly by us to customers.

Our subscription services revenue is derived from the services we perform in connection with the sale of *Evergreen Storage* and *Pure as-a-Service* subscriptions and is recognized ratably over the contractual term, which generally ranges from one to six years. The majority of our product solutions are sold with an *Evergreen Storage* subscription service agreement, which typically commences upon transfer of control of the corresponding products to our customers. Costs for subscription services are expensed when incurred. In addition, our *Evergreen Storage* subscription provides our customers with a new controller based upon certain contractual terms. The controller refresh represents a separate performance obligation that is included within the *Evergreen Storage* subscription service agreement and the allocated revenue is recognized upon shipment of the controller.

Our *Evergreen Storage* subscription services also include the right to receive unspecified software updates and upgrades on a when-and-if-available basis, software bug fixes, replacement parts and other services related to the underlying infrastructure, as well as access to our cloud-based management and support platform. We also sell professional services such as installation and implementation consulting services and the related revenue is recognized as services are performed.

We recognize revenue upon the transfer of promised goods or services to customers in an amount that reflects the consideration we expect to be entitled in exchange for those goods or services. This is achieved through applying the following five-step approach:

- *Identification of the contract, or contracts, with a customer*
- *Identification of the performance obligations in the contract*
- *Determination of the transaction price*
- *Allocation of the transaction price to the performance obligations in the contract*
- *Recognition of revenue when, or as, we satisfy a performance obligation*

When applying this five-step approach, we apply judgment in determining the customer's ability and intention to pay, which is based on a variety of factors including the customer's historical payment experience and/or published credit and financial information pertaining to the customer. To the extent a customer contract includes multiple promised goods or services, we determine whether promised goods or services should be accounted for as a separate performance obligation. The transaction price is determined based on the consideration which we will be entitled to in exchange for transferring goods or services to the customer. For contracts that contain multiple performance obligations, we allocate the transaction price to each performance obligation based on a relative standalone selling price. The standalone selling price is determined based on the price at which the performance obligation is sold separately, or if not observable through past transactions, is estimated taking into account available information such as market conditions and internally approved pricing guidelines related to performance obligations.

Warranty

We generally provide a three-year warranty on hardware and a 90-day warranty on our software embedded in the hardware. Our hardware warranty provides for parts replacement for defective components and our software warranty provides for bug fixes. Our *Evergreen Storage* subscription agreement provides for the same parts replacement that customers are entitled to under our warranty program, except that replacement parts are delivered according to targeted response times to minimize disruption to our customers' critical business applications. Substantially all customers purchase *Evergreen Storage* subscription agreements. As such, the warranty reserve at the end of fiscal 2021 was not material.

Research and Development

Research and development costs are expensed as incurred. Research and development costs consist primarily of employee compensation and related expenses, prototype expenses, to the extent there is no alternative use for that equipment, depreciation of equipment used in research and development, third-party engineering and contractor support costs, as well as allocated overhead costs.

Capitalized Internal-Use Software Costs

We expense costs to develop software that is externally marketed before technological feasibility is reached. We have determined that technological feasibility is reached shortly before the release of our products and as a result, the development costs incurred after the establishment of technological feasibility and before the release of those products have not been significant and accordingly, all related software development costs have been expensed as incurred.

We capitalize (i) costs incurred to develop or modify software solely for our internal use, including hosted applications used to deliver our support services, and (ii) certain implementation costs incurred in a hosting arrangement that is a service contract when the preliminary project stage is complete, management with the relevant authority authorizes and commits to the funding of the software project, and it is probable the project will be completed and used to perform the intended function. Costs related to preliminary project activities and post implementation activities are expensed as incurred. Software development costs are capitalized to property, plant and equipment and amortized using the straight-line method over an estimated useful life of four years. Software implementation costs are capitalized to either prepaid and other current assets or other assets, non-current on our consolidated balance sheet and amortized over the terms of the associated hosting arrangements. No amount of software development and implementation costs were capitalized during fiscal 2019 and 2020 and the amount of software development and implementation costs capitalized and the related amortization expense were not material during fiscal 2021.

Advertising Expenses

Advertising costs are expensed as incurred. Advertising expenses were $10.7 million, $13.3 million and $8.1 million for fiscal 2019, 2020 and 2021.

Stock-Based Compensation

Stock-based compensation includes expenses related to restricted stock units (RSUs), restricted stock, stock options and purchase rights issued to employees under our employee stock purchase plan (ESPP). RSUs and restricted stock are measured at the fair market value of the underlying stock at the grant date. We determine the fair value of purchase rights issued to employees under our ESPP and our stock options under our equity plans on the date of grant utilizing the Black-Scholes option pricing model, which is impacted by the fair value of our common stock, as well as changes in assumptions regarding a number of subjective variables. These variables include the expected common stock price volatility over the term of the awards, the expected term of the awards, risk-free interest rates and expected dividend yield.

We recognize stock-based compensation expense for stock-based awards on a straight-line basis over the period during which an employee is required to provide services in exchange for the award (generally the vesting period of the award). We account for forfeitures as they occur. For stock-based awards granted to employees with a performance condition, we recognize stock-based compensation expense for these awards under the accelerated attribution method over the requisite service period when management determines it is probable that the performance condition will be satisfied.

Income Taxes

We account for income taxes using the asset and liability method. Deferred income taxes are recognized by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The measurement of deferred tax assets is reduced, if necessary, by a valuation allowance to amounts that are more likely than not to be realized.

We recognize tax benefits from uncertain tax positions only if we believe that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized upon settlement.

New Accounting Pronouncements Adopted in Fiscal 2021

We adopted the following Accounting Standards Updates (ASUs) effective February 3, 2020, none of which had a material impact on our financial position or results of operation:

ASU	***Description***
ASU 2016-13	*Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*
ASU 2017-04	*Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*
ASU 2018-13	*Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement*
ASU 2018-15	*Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*
ASU 2019-12	*Income Taxes - Simplifying the Accounting for Income Taxes (Topic 740)*

Recent Accounting Pronouncements Not Yet Adopted

In March 2020, the Financial Accounting Standards Board (FASB) issued ASU 2020-04, *Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships, and other transactions affected by the reference rate reform if certain criteria are met. The amendments apply only to contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. The amendments are effective for all entities as of March 12, 2020 through December 31, 2022. We are currently evaluating the impact of this standard on our consolidated financial statements.

In August 2020, the FASB issued ASU 2020-06, A*ccounting for Convertible Instruments and Contracts in an Entity's Own Equity*, which simplifies the accounting for certain convertible instruments, amends guidance on derivative scope exceptions for contracts in an entity's own equity, and modifies the guidance on diluted earnings per share (EPS) calculations as a result of these changes. The standard will be effective for us beginning February 7, 2022 and can be applied on either a fully retrospective or modified retrospective basis. Early adoption is permitted for fiscal years beginning after December 15, 2020. We are currently evaluating the impact of this standard on our consolidated financial statements.

Note 3. Financial Instruments

Fair Value Measurements

We define fair value as the exchange price that would be received from sale of an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. We measure our financial assets and liabilities at fair value at each reporting period using a fair value hierarchy which requires us to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's classification within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Three levels of inputs may be used to measure fair value:

- *Level 1* - Observable inputs are unadjusted quoted prices in active markets for identical assets or liabilities;
- *Level 2* - Observable inputs are quoted prices for similar assets and liabilities in active markets or inputs other than quoted prices that are observable for the assets or liabilities, either directly or indirectly through market corroboration, for substantially the full term of the financial instruments; and
- *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. These inputs are based on our own assumptions used to measure assets and liabilities at fair value and require significant management judgment or estimation.

Cash Equivalents, Marketable Securities and Restricted Cash

We measure our cash equivalents, marketable securities and restricted cash at fair value on a recurring basis. We classify our cash equivalents, marketable securities and restricted cash within Level 1 or Level 2 because they are valued using either quoted market prices or inputs other than quoted prices which are directly or indirectly observable in the market, including readily-available pricing sources for the identical underlying security which may not be actively traded. Our fixed income available-for-sale securities consist of high quality, investment grade securities from diverse issuers. The valuation techniques used to measure the fair value of our marketable securities were derived from non-binding market consensus prices that are corroborated by observable market data or quoted market prices for similar instruments.

The following tables summarize our cash equivalents, marketable securities and restricted cash by significant investment categories and their classification within the fair value hierarchy at the end of fiscal 2020 and 2021 (in thousands):

	At the End of Fiscal 2020						
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash Equivalents	Marketable Securities	Restricted Cash
Level 1							
Money market accounts	$ —	$ —	$ —	$ 26,355	$ 11,068	$ —	$ 15,287
Level 2							
U.S. government treasury notes	323,751	2,146	—	325,897	—	325,897	—
U.S. government agencies	53,930	317	(3)	54,244	—	54,244	—
Corporate debt securities	452,318	3,954	(1)	456,271	3,001	453,270	—
Foreign government bonds	14,994	147	—	15,141	—	15,141	—
Asset-backed securities	87,267	699	—	87,966	—	87,966	—
Total	$ 932,260	$ 7,263	$ (4)	$ 965,874	$ 14,069	$ 936,518	$ 15,287

	At the End of Fiscal 2021						
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash Equivalents	Marketable Securities	Restricted Cash
Level 1							
Money market accounts	$ —	$ —	$ —	$ 49,984	$ 39,440	$ —	$ 10,544
Level 2							
U.S. government treasury notes	339,253	3,241	(1)	342,493	15,340	327,153	—
U.S. government agencies	56,729	516	—	57,245	—	57,245	—
Corporate debt securities	425,115	4,176	(33)	429,258	—	429,258	—
Foreign government bonds	21,486	307	—	21,793	—	21,793	—
Asset-backed securities	79,924	1,015	—	80,939	—	80,939	—
Total	$ 922,507	$ 9,255	$ (34)	$ 981,712	$ 54,780	$ 916,388	$ 10,544

The amortized cost and estimated fair value of our marketable securities are shown below by contractual maturity (in thousands):

	At the End of Fiscal 2021	
	Amortized Cost	Fair Value
Due within one year	$ 316,339	$ 318,019
Due in one to five years	590,828	598,369
Total	$ 907,167	$ 916,388

Unrealized losses on our debt securities have not been recorded into income because we do not intend to sell nor is it more likely than not that we will be required to sell these investments prior to recovery of their amortized cost basis. The decline in fair value of our debt securities is largely due to changes in credit spreads as a result of market conditions. The credit ratings associated with our debt securities are mostly unchanged, are highly rated and the issuers continue to make timely principal and interest payments. As a result, there was no impairment charge for any unrealized losses in fiscal 2019 and 2020, and we had no credit losses recorded for fiscal 2021. The following table presents gross unrealized losses and fair values for those investments that were in a continuous unrealized loss position at the end of fiscal 2020 and 2021, aggregated by investment category (in thousands):

	At the End of Fiscal 2020					
	Less than 12 months		Greater than 12 months		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
U.S. government treasury notes	$ —	$ —	$ 1,000	$ —	$ 1,000	$ —
U.S. government agencies	4,998	(3)	—	—	4,998	(3)
Corporate debt securities	9,691	(1)	—	—	9,691	(1)
Total	$ 14,689	$ (4)	$ 1,000	$ —	$ 15,689	$ (4)

	At the End of Fiscal 2021					
	Less than 12 months		Greater than 12 months		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
U.S. government treasury notes	$ 8,301	$ (1)	$ —	$ —	$ 8,301	$ (1)
Corporate debt securities	32,996	(33)	—	—	32,996	(33)
Total	$ 41,297	$ (34)	$ —	$ —	$ 41,297	$ (34)

Realized gains or losses on sale of marketable securities were not significant for all periods presented.

Other Financial Instruments

We measure the fair value of our Notes on a quarterly basis and we determined the fair value of the Notes at the end of fiscal 2020 and 2021 to be a Level 2 measurement due to its limited trading activity. Refer to Note 7 for the net carrying amounts and estimated fair value of the Notes at the end of fiscal 2020 and 2021.

Note 4. Business Combinations

Fiscal 2021 - Acquisition of Portworx Inc.

In October 2020, we acquired all outstanding stock of Portworx Inc. (Portworx), a privately-held container storage company that provides a Kubernetes data services platform for cloud native application. The transaction costs associated with the acquisition were not material and expensed as incurred. The total purchase consideration for the acquisition of Portworx was $352.9 million, which consisted of the following (in thousands):

Cash	$	344,049
Fair value of options assumed		8,802
Total	$	352,851

We assumed certain unvested and outstanding stock options for Portworx's common stock. These stock options were converted into stock options for shares of our common stock. The fair value of the exchanged options determined using the Black-Scholes option pricing model was $26.8 million, of which $8.8 million attributable to services performed prior to the acquisition date was allocated to purchase consideration. The remaining fair value of $18.0 million was allocated to future services and is being expensed over the remaining service periods as stock-based compensation expense. In addition, we assumed RSUs outstanding under the 2020 Portworx Equity Incentive Plan with a fair value of $31.8 million that is being recognized as stock-based compensation expense over a four year vesting period.

The following table summarizes the fair values of assets acquired and liabilities assumed as of the date of the acquisition (in thousands):

		Amount	Estimated Useful Life
Goodwill	$	321,152	
Identified intangible assets:			
Developed technology		21,273	5 years
Customer relationships		6,459	7 years
Trade name		3,623	3 years
Cash		4,407	
Net liabilities assumed		(4,063)	
Total	$	352,851	

Goodwill generated from this acquisition is primarily attributable to the assembled workforce and expected post-acquisition synergies from combining Portworx container data services with our data services platform to expand our capabilities to support Kubernetes and containers. Goodwill is not deductible for tax purposes. The fair values of developed technology, customer relationships and trade name were derived by applying the excess earnings method, with-and-without method, and the relief-from-royalty method, respectively, all of which are under the income approach whose underlying inputs are considered Level 3. The fair values assigned to assets acquired and liabilities assumed are based on management's estimates and assumptions.

In connection with the Portworx acquisition, we recorded a net deferred tax asset of $14.7 million. However, this amount was offset by a valuation allowance, thus, resulting in a net zero deferred tax asset during fiscal 2021. We continue to maintain a valuation allowance for our U.S. federal and state deferred tax assets.

In addition, cash payments to certain former shareholders of Portworx totaling $32.2 million are being made over three years subject to continuous employment and are recognized as an operating expense.

The results of Portworx have been included in our consolidated statements of operations since the acquisition date and are not material. Pro forma results of operations have not been presented because the acquisition is not material to our results of operations.

Fiscal 2020 - Acquisition of Compuverde AB

In April 2019, we acquired Compuverde AB (Compuverde), a privately-held developer of file software solutions for enterprises and cloud providers based in Sweden. Acquisition-related costs were not material and expensed as incurred.

The purchase consideration was $47.9 million in cash (net of cash acquired) after repayment of $11.6 million of debt assumed. The purchase price was allocated as follows: $38.4 million in developed technology which is being amortized over seven years, $26.6 million of goodwill, $11.7 million in net liabilities assumed, and $5.4 million in deferred tax liability. The deferred tax liability was primarily a result of the difference in the book basis and tax basis related to the developed technology. Goodwill is primarily attributable to the assembled workforce and synergies from integrating Compuverde's technology with our data platform to expand our file capabilities and is not deductible for tax purposes.

In addition, cash payments to former shareholders of Compuverde totaling $15.9 million are being made over a two-year period and recognized as operating expense.

Restricted stock units in the amount of $3.0 million were issued to Compuverde employees in June 2019, subject to continuous employment and are being recognized as stock-based compensation over the related vesting period.

The results of Compuverde have been included in our consolidated statements of operations since the acquisition date and are not material. Pro forma results of operations have not been presented because the acquisition is not material to our results of operations.

Fiscal 2019 - Acquisition of StorReduce, Inc.

In August 2018, we completed the acquisition of StorReduce, Inc. (StorReduce), a privately-held, cloud-first software-defined storage solution for managing large-scale unstructured data. Acquisition-related costs were immaterial and were expensed as incurred.

The purchase consideration was $20.5 million in cash (net of cash acquired) after repayment of $6.1 million of debt assumed and payment of $1.1 million in transaction fees on behalf of StorReduce.

The purchase price was allocated as follows: $17.7 million in developed technology which is being amortized over seven years, $11.0 million of goodwill, $4.5 million in net liabilities assumed, and $3.7 million in deferred tax liabilities. The deferred tax liability was primarily a result of the difference in the book basis and tax basis related to the developed technology. Goodwill is primarily attributable to the assembled workforce and synergies from integrating StorReduce's technology with our storage portfolio and is not deductible for income tax purposes. We held back approximately $3.7 million in cash to satisfy potential indemnification claims which was paid in August 2019.

In addition, we granted 622,482 RSUs to former StorReduce employees with a total grant date fair value of $13.6 million, subject to continuous employment. These awards are being recognized as stock-based compensation over the related vesting period.

The results of StorReduce have been included in our consolidated statements of operations since the acquisition date, including revenue and net loss, and are not material. Pro forma results of operations have not been presented because the acquisition is not material to our results of operations.

Note 5. Balance Sheet Components

Inventory

Inventory consists of the following (in thousands):

	At the End of Fiscal	
	2020	**2021**
Raw materials	$ 2,974	$ 4,991
Finished goods	35,544	41,742
Inventory	$ 38,518	$ 46,733

Property and Equipment, Net

Property and equipment, net consists of the following (in thousands):

	At the End of Fiscal	
	2020	2021
Test equipment	$ 205,555	$ 238,069
Computer equipment and software	141,387	184,518
Furniture and fixtures	8,324	8,484
Leasehold improvements	40,356	44,444
Total property and equipment	395,622	475,515
Less: accumulated depreciation and amortization	(272,882)	(312,474)
Property and equipment, net	$ 122,740	$ 163,041

Depreciation and amortization expense related to property and equipment was $68.3 million, $80.4 million and $57.1 million for fiscal 2019, 2020 and 2021, respectively.

Intangible Assets, Net

Intangible assets, net consist of the following (in thousands):

	At the End of Fiscal					
	2020			2021		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount
Technology patents	$ 19,125	$ (8,933)	$ 10,192	$ 19,125	$ (11,722)	$ 7,403
Developed technology	56,100	(8,035)	48,065	77,373	(17,499)	59,874
Customer relationships	—	—	—	6,459	(308)	6,151
Trade name	—	—	—	3,623	(403)	3,220
Intangible assets, net	$ 75,225	$ (16,968)	$ 58,257	$ 106,580	$ (29,932)	$ 76,648

Intangible assets amortization expense was $2.6 million, $9.3 million and $13.0 million for fiscal 2019, 2020 and 2021, respectively. At the end of fiscal 2021, the weighted-average remaining amortization period was 2.7 years for technology patents, 4.9 years for developed technology, 6.7 years for customer relationships, and 2.7 years for trade name. We recorded amortization of technology patents in general and administrative expenses due to their defensive nature, developed technology in cost of product revenue, and customer relationships and trade name in sales and marketing expenses in the consolidated statements of operations.

At the end of fiscal 2021, future expected amortization expense for intangible assets is as follows (in thousands):

Fiscal Years Ending	Future Expected Amortization Expense
2022	$ 16,231
2023	15,685
2024	15,282
2025	14,477
2026	11,924
Thereafter	3,049
Total	$ 76,648

Goodwill

The change in the carrying amount of goodwill is as follows (in thousands):

		Amount
Balance as of the end of fiscal 2020	$	37,584
Goodwill acquired		321,152
Balance as of the end of fiscal 2021	$	358,736

Accrued Expenses and Other Liabilities

Accrued expenses and other liabilities consist of the following (in thousands):

	At the End of Fiscal			
		2020		2021
Taxes payable	$	9,012	$	4,097
Accrued marketing		7,679		15,638
Accrued travel and entertainment expenses		3,829		866
Acquisition consideration		6,149		9,600
Other accrued liabilities		20,554		31,553
Total accrued expenses and other liabilities	$	47,223	$	61,754

Note 6. Deferred Revenue and Commissions

Deferred Commissions

Changes in total deferred commissions during the periods presented are as follows (in thousands):

	Fiscal Year Ended			
		2020		2021
Beginning balance	$	114,973	$	139,204
Additions		141,147		183,151
Recognition of deferred commissions		(116,916)		(134,431)
Ending balance	$	139,204	$	187,924

During fiscal 2019, 2020 and 2021, we recognized sales commission expenses of $118.4 million, $142.5 million, and $150.2 million, respectively. Of the $187.9 million total deferred commissions balance at the end of fiscal 2021, we expect to recognize approximately 30% as sales commission expense over the next 12 months and the remainder thereafter.

There was no impairment related to capitalized commissions for fiscal 2019, 2020 or 2021.

Deferred Revenue

Changes in total deferred revenue during the periods presented are as follows (in thousands):

	Fiscal Year Ended			
		2020		2021
Beginning balance	$	535,920	$	697,288
Additions		569,816		703,800
Recognition of deferred revenue		(408,448)		(557,391)
Ending balance	$	697,288	$	843,697

During fiscal 2020 and 2021, we recognized approximately $267.0 million and $353.1 million, respectively, in revenue pertaining to deferred revenue as of the beginning of each period.

Remaining Performance Obligations

Total contracted but not recognized revenue was $1,093.5 million at the end of fiscal 2021. Contracted but not recognized revenue consists of both deferred revenue and non-cancelable amounts that are expected to be invoiced and recognized as revenue in future periods. The value of orders that are contracted but have not been fulfilled and that can be canceled by customers, are excluded from remaining performance obligations. Of the $1,093.5 million contracted but not recognized revenue at the end of fiscal 2021, we expect to recognize approximately 43% over the next 12 months, and the remainder thereafter.

Note 7. Debt

Convertible Senior Notes

In April 2018, we issued $575.0 million in principal amount of 0.125% convertible senior notes due 2023, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act and received proceeds of $562.1 million, after deducting the underwriters' discounts and commissions. The Notes are governed by an indenture (the Indenture) between us, as the issuer, and U.S. Bank National Association, as trustee. The Notes are our senior unsecured obligations. The Indenture does not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries. The Notes mature on April 15, 2023 unless repurchased or redeemed by us or converted in accordance with their terms prior to the maturity date. Interest is payable semi-annually in arrears on April 15 and October 15 of each year.

The Notes are convertible for up to 21,884,155 shares of our common stock at an initial conversion rate of approximately 38.0594 shares of common stock per $1,000 principal amount, which is equal to an initial conversion price of approximately $26.27 per share of common stock, subject to adjustment. Holders of the Notes may surrender their Notes for conversion at their option at any time prior to the close of business on the business day immediately preceding October 15, 2022, only under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ended on July 31, 2018 (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price for the Notes on each applicable trading day;

- during the five business day period after any five consecutive trading day period (the measurement period), in which the trading price per $1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the Notes on each such trading day;

- if we call any or all of the Notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

- upon the occurrence of specified corporate events.

On or after October 15, 2022 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their Notes at any time regardless of the foregoing circumstances. Upon conversion, holders will receive cash, shares of our common stock, or a combination of cash and shares of our common stock, at our election. We intend to settle the principal of the Notes in cash.

The conversion price will be subject to adjustment in some events. Following certain corporate events that occur prior to the maturity date or following our issuance of a notice of redemption, we will increase the conversion rate for a holder who elects to convert its Notes in connection with such corporate event or during the related redemption period in certain circumstances. Additionally, upon the occurrence of a corporate event that constitutes a "fundamental change" per the Indenture, holders of the Notes may require us to repurchase for cash all or a portion of the Notes at a purchase price equal to 100% of the principal amount of the Notes plus accrued and unpaid contingent interest.

We may not redeem the Notes prior to April 20, 2021. We may redeem for cash all or any portion of the Notes, at our option, on or after April 20, 2021 if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending not more than two trading days immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the Notes.

Upon the issuance of the Notes, we recorded total debt issuance costs of $12.9 million, of which $9.8 million was allocated to the Notes and $3.1 million was allocated to additional paid-in capital.

The Notes consisted of the following (in thousands):

	At the End of Fiscal	
	2020	2021
Liability:		
Principal	$ 575,000	$ 575,000
Less: debt discount, net of amortization	(91,378)	(64,515)
Less: debt issuance costs, net of amortization	(6,615)	(4,671)
Net carrying amount of the Notes	$ 477,007	$ 505,814

Stockholders' equity recorded at issuance:	
Allocated value of the conversion feature	$ 136,333
Less: debt issuance costs	(3,068)
Additional paid-in capital	$ 133,265

The total estimated fair values of the Notes at the end of fiscal 2020 and 2021 were $582.6 million and $649.0 million. The fair values were determined based on the closing trading price per $100 of the Notes as of the last day of trading of fiscal 2020 and 2021. The fair value of the Notes is primarily affected by the trading price of our common stock and market interest rates. Based on the closing price of our common stock of $23.13 on the last day of fiscal 2021, the if-converted value of the Notes of $506.2 million was less than its principal amount. At the end of fiscal 2021, the remaining term of the Notes is 26 months.

The following table sets forth total interest expense recognized related to the Notes (in thousands):

	Fiscal Year Ended	
	2020	2021
Amortization of debt discount	$ 25,344	$ 26,863
Amortization of debt issuance costs	1,835	1,944
Total amortization of debt discount and debt issuance costs	27,179	28,807
Contractual interest expense	718	718
Total interest expense related to the Notes	$ 27,897	$ 29,525
Effective interest rate of the liability component	5.6 %	5.6 %

In connection with the offering of the Notes, we paid $64.6 million to enter into capped call transactions with certain of the underwriters and their affiliates (the Capped Calls), whereby we have the option to purchase a total of 21,884,155 shares of our common stock upon any conversion of Notes and/or offset any cash payments we are required to make in excess of the principal amount of the Notes, as the case may be, with such reduction or offset subject to a cap initially equal to $39.66 per share (which represents a premium of 100% over the last reported sales price of our common stock on April 4, 2018), subject to certain adjustments (the Cap Price). The cost of the Capped Calls was accounted for as a reduction to additional paid-in capital on the consolidated balance sheet. The Capped Calls are intended to reduce or offset potential dilution of our common stock upon any conversion of the Notes, subject to a cap based on the Cap Price.

Impact on Earnings Per Share

The Notes will not impact our diluted earnings per share until the average market price of our common stock exceeds the conversion price of $26.27 per share, as we intend to settle the principal amount of the Notes in cash upon conversion. We are required under the treasury stock method to compute the potentially dilutive shares of common stock related to the Notes for periods we report net income. However, upon conversion, there will be no economic dilution from the Notes until the average market price of our common stock exceeds the Cap Price of $39.66 per share, as exercise of the Capped Calls offsets any dilution from the Notes from the conversion price up to the Cap Price. Capped Calls are excluded from the calculation of diluted earnings per share, as they would be anti-dilutive under the treasury stock method.

Revolving Credit Facility

In August 2020, we entered into a Credit Agreement with a consortium of financial institutions and lenders that provides for a five-year, senior secured revolving credit facility of $300.0 million (Credit Facility). Proceeds from the Credit Facility may be used for general corporate purposes and working capital. The Credit Facility expires, absent default or early termination by us, on the earlier of (i) August 24, 2025 or (ii) 91 days prior to the stated maturity of the Notes unless, on such date and each subsequent day until the Notes are paid in full, the sum of our cash, cash equivalents and marketable securities and the aggregate unused commitments then available to us exceed $625.0 million.

The annual interest rates applicable to loans under the Credit Facility are, at our option, equal to either a base rate plus a margin ranging from 0.50% to 1.25% or LIBOR (based on one, three or six-month interest periods), subject to a floor of 0%, plus a margin ranging from 1.50% to 2.25%. Interest on revolving loans is payable quarterly in arrears with respect to loans based on the base rate and at the end of an interest period in the case of loans based on LIBOR (or at each three-month interval if the interest period is longer than three months). We are also required to pay a commitment fee on the unused portion of the commitments ranging from 0.25% to 0.40% per annum, payable quarterly in arrears that commenced on September 30, 2020.

In September 2020, we drew down $250.0 million under the Credit Facility which remained outstanding at the end of fiscal 2021. The outstanding loan bore weighted-average interest at the one-month LIBOR of approximately 1.65% resulting in interest expense of $1.4 million during fiscal 2021.

Loans under the Credit Facility are collateralized by substantially all of our assets and subject to certain restrictions and two financial ratios measured as of the last day of each fiscal quarter, commencing with the fiscal quarter ended January 31, 2021: a Consolidated Leverage Ratio not to exceed 4.5:1 and an Interest Coverage Ratio not to be less than 3:1. We were in compliance with all covenants under the Credit Facility at the end of fiscal 2021.

Note 8. Commitments and Contingencies

Operating Leases

At the end of fiscal 2021, we had various non-cancelable operating lease commitments for office facilities. Refer to Note 9—Leases for additional information regarding lease commitments.

Contractual Purchase Obligations

At the end of fiscal 2021, we had $251.8 million of non-cancelable contractual purchase obligations primarily related to inventory purchase commitments, software service and sponsorship contracts, and hosting arrangements. We have various manufacturing contracts with vendors in the conduct of the normal course of business. In order to manage future demand for its products, we enter into agreements with manufacturers and suppliers to procure inventory based upon certain criteria and timing.

Letters of Credit

At the end of fiscal 2020 and 2021, we had outstanding letters of credit in the aggregate amount of $11.5 million and $6.7 million, in connection with our facility leases. The letters of credit are collateralized by restricted cash and mature on various dates through August 2029.

Legal Matters

From time to time, we have become involved in claims and other legal matters arising in the normal course of business. We investigate these claims as they arise. Although claims are inherently unpredictable, we currently are not aware of any matters that we expect to have a material adverse effect on our business, financial position, results of operations or cash flows. Accordingly, we have not recorded any loss contingency on our consolidated balance sheet as of the end of fiscal 2021.

Indemnification

Our arrangements generally include certain provisions for indemnifying customers against liabilities if our products or services infringe a third party's intellectual property rights. Other guarantees or indemnification arrangements include guarantees of product and service performance and standby letters of credit for lease facilities. It is not possible to determine the maximum potential amount under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. To date, we have not incurred any material costs as a result of such obligations and have not accrued any liabilities related to such obligations in the consolidated financial statements. In addition, we indemnify our officers, directors and certain key employees while they are serving in good faith in their respective capacities. To date, there have been no claims under any indemnification provisions.

Note 9. Leases

We lease office facilities under non-cancelable operating lease agreements expiring through July 2032. Our lease agreements do not contain any material residual value guarantees or restrictive covenants. During fiscal 2021, we ceased use of certain leased facilities that resulted in the recognition of certain exit costs - see Note 10 for further information. In addition, we executed an early renewal that modified an existing data center lease with additional lease payments of $27.3 million.

The components of lease costs were as follows (in thousands):

	Fiscal Year Ended	
	2020	**2021**
Fixed operating lease cost	$ 33,800	$ 37,411
Variable lease cost [1]	8,097	9,168
Short-term lease cost (12 months or less)	5,537	5,734
Total lease cost	$ 47,434	$ 52,313

[1] Variable lease cost predominantly included common area maintenance charges.

Rent expense recognized under our operating leases prior to adoption of ASC 842 was $25.6 million during fiscal 2019.

At the end of fiscal 2020, the weighted-average remaining lease term was 5.6 years, and the weighted-average discount rate was 6.5%. At the end of fiscal 2021, the weighted-average remaining lease term is 5.2 years, and the weighted-average discount rate is 5.8%. Future lease payments under our non-cancelable operating leases at the end of fiscal 2021 are as follows (in thousands):

Fiscal Years Ending	**Operating Leases**
2022	$ 40,110
2023	36,971
2024	31,340
2025	27,059
2026	19,231
Thereafter	24,371
Total future lease payments	$ 179,082
Less: imputed interest	(26,490)
Present value of lease liabilities	$ 152,592

Note 10. Restructuring and Other

During fiscal 2021, we ceased use of certain leased facilities and recorded an impairment charge of $7.5 million for operating lease right-of-use assets and leasehold improvements for these leases. In addition, we recognized a liability of $2.4 million for the remaining lease costs that will continue to be incurred without benefit to us.

During fiscal 2021, we effected workforce realignment plans to streamline our operations and recognized $12.2 million of restructuring costs related to one-time involuntary termination benefit costs. The restructuring charges are included in restructuring and other expenses in our consolidated statement of operations. The liability for unpaid amounts at the end of fiscal 2021 was $4.3 million.

During fiscal 2021, we incurred incremental costs of $9.8 million directly related to the COVID-19 pandemic. These costs primarily included the write-off of marketing commitments no longer deemed to have value for the remainder of fiscal 2021, estimated non-recoverable costs for internal events that could not be held, and hazard related premiums to support manufacturing operations. Of these costs, $8.9 million is included in restructuring and other expenses and $0.9 million is included in cost of revenue in our consolidated statements of operations for fiscal 2021.

Note 11. Stockholders' Equity

Preferred Stock

We have 20,000,000 authorized shares of undesignated preferred stock, the rights, preferences and privileges of which may be designated from time to time by our board of directors. At the end of fiscal 2021, there were no shares of preferred stock issued or outstanding.

Class A and Class B Common Stock

We have two classes of authorized common stock, Class A common stock, which we refer to as our "common stock", and Class B common stock. We have 2,000,000,000 authorized shares of Class A common stock and 250,000,000 authorized shares of Class B common stock, with each class having a par value of $0.0001 per share. At the end of fiscal 2021, 278,362,598 shares of Class A common stock were issued and outstanding.

Common Stock Reserved for Issuance

At the end of fiscal 2021, we had reserved shares of common stock for future issuance as follows:

Shares underlying outstanding stock options	18,558,974
Shares underlying outstanding restricted stock units	30,830,082
Shares reserved for future equity awards	14,040,926
Shares reserved for future employee stock purchase plan awards	3,938,930
Total	67,368,912

Share Repurchase Program

In August 2019, our board of directors approved a stock repurchase program to repurchase up to $150.0 million of our common stock, which was substantially completed in the fourth quarter of fiscal 2021. In February 2021, our board of directors authorized the repurchase of up to an additional $200.0 million of our common stock. The authorization allows us to repurchase shares of our common stock opportunistically and will be funded from available working capital. Repurchases may be made at management's discretion from time to time on the open market through privately negotiated transactions, transactions structured through investment banking institutions, block purchase techniques, 10b5-1 trading plans, or a combination of the foregoing. The share repurchase program does not obligate us to acquire any of our common stock, has no end date, and may be suspended or discontinued by us at any time without prior notice.

We record the difference between cash paid for stock repurchases and underlying par value as a reduction to additional paid-in capital, to the extent the repurchases does not cause this balance to be reduced below zero, at which point the difference would be recorded as a reduction to accumulated deficit. During fiscal 2020, we repurchased and retired 867,657 shares of common stock at an average purchase price of $17.29 per share for an aggregate repurchase price of $15.0 million. During fiscal 2021, we repurchased and retired 9,526,556 shares of common stock at an average purchase price of $14.17 per share for an aggregate repurchase price of $135.0 million.

Repurchase of Common Stock in connection with the Notes

Concurrent with the issuance of the Notes (see Note 7), we repurchased and retired 1,008,573 shares, or $20.0 million, of our common stock at $19.83 per share, which was equal to the closing price per share of our common stock on April 4, 2018, the date of the pricing of the offering of the Notes.

Note 12. Equity Incentive Plans

Equity Incentive Plans

We maintain two equity incentive plans: the 2009 Equity Incentive Plan (the 2009 Plan) and the 2015 Equity Incentive Plan (the 2015 Plan). The 2015 Plan serves as the successor to our 2009 Plan and provides for grants of incentive stock options to our employees and non-statutory stock options, stock appreciation rights, restricted stock, RSUs, performance stock awards, performance cash awards, and other forms of stock awards to our employees, directors and consultants. Outstanding awards granted under our 2009 Plan will remain subject to the terms of our 2009 Plan and applicable award agreements, until such outstanding awards that are stock options are exercised, terminated or expired by their terms. Our equity awards generally vest over a two to four year period and expire no later than ten years from the date of grant.

We initially reserved 27,000,000 shares of our common stock for issuance under our 2015 Plan. The number of shares reserved for issuance under our 2015 Plan increases automatically on the first day of each fiscal year through 2025, in an amount equal to 5% of the total number of shares of our capital stock outstanding as of the immediately preceding January 31.

We net-share settle equity awards held by certain employees by withholding shares upon vesting to satisfy tax withholding obligations. The shares withheld to satisfy employee tax withholding obligations are returned to our 2015 Plan and will be available for future issuance. Payments for employees' tax obligations to the tax authorities are recognized as a reduction to additional paid-in capital and reflected as a financing activity in our consolidated statements of cash flows.

In conjunction with the Portworx acquisition, we assumed (i) certain options to purchase common stock outstanding under Portworx's 2014 Stock Incentive Plan and (ii) RSUs outstanding under the 2020 Portworx Equity Incentive Plan (collectively, the "Assumed Equity Awards"). The Assumed Equity Awards were converted into corresponding awards for shares of our common stock and retained substantially all of the terms and conditions under which they were granted. Approximately 3.9 million shares are reserved for issuance in connection with the Assumed Equity Awards. Refer to Note 4 for further information on the equity awards assumed resulting from the Portworx acquisition.

2015 Amended and Restated Employee Stock Purchase Plan

Our 2015 Employee Stock Purchase Plan was amended and restated in fiscal 2020 (2015 ESPP). A total of 3,500,000 shares of common stock was initially reserved for issuance under the 2015 ESPP and an additional 5,000,000 shares of common stock were added in connection with the amendment and restatement. The number of shares reserved for issuance under our 2015 ESPP increases automatically on the first day of February of each of 2016 through 2025, in an amount equal to the lesser of (i) 1% of the total number of shares of our capital stock outstanding as of the immediately preceding January 31, and (ii) 3,500,000 shares of common stock.

Our board of directors (or a committee thereof) has the authority to establish the length and terms of the offering periods and purchase periods and the purchase price of the shares of common stock which may be purchased under the plan. The current offering terms allow eligible employees to purchase shares of our common stock at a discount through payroll deductions of up to 30% of their eligible compensation, subject to a cap of 3,000 shares on any purchase date, a dollar cap of $7,500 per purchase period (instituted in February 2019), or $25,000 in any calendar year (as determined under applicable tax rules). The current terms also allow for a 24-month offering period beginning March 16th and September 16th of each year, with each offering period consisting of four 6 month purchase periods, subject to a reset provision. Further, currently, on each purchase date, eligible employees may purchase our common stock at a price per share equal to 85% of the lesser of the fair market value of our common stock (1) on the first trading day of the applicable offering period or (2) the purchase date.

Under the reset provision currently authorized, if the closing stock price on the offering date of a new offering falls below the closing stock price on the offering date of an ongoing offering, the ongoing offering would terminate immediately following the purchase of ESPP shares on the purchase date immediately preceding the new offering and participants in the terminated ongoing offering would automatically be enrolled in the new offering (ESPP reset), resulting in a modification charge to be recognized over the new offering period. During fiscal 2020 and 2021, multiple ESPP resets resulted in total modification charges of $13.6 million and $23.8 million to be recognized over the new offering periods. There was no ESPP reset during fiscal 2019.

During fiscal 2019, 2020 and 2021, we recognized $35.4 million, $24.5 million and $25.8 million, of stock-based compensation expense related to our 2015 ESPP. At the end of fiscal 2021, total unrecognized stock-based compensation cost related to our 2015 ESPP was $32.8 million, which is expected to be recognized over a weighted-average period of approximately 1.2 years.

Stock Options

A summary of the stock option activity under our equity incentive plans and related information is as follows:

	Options Outstanding			
	Number of Shares	**Weighted-Average Exercise Price**	**Weighted-Average Remaining Contractual Life (Years)**	**Aggregate Intrinsic Value (in thousands)**
Balance at the end of fiscal 2020	26,822,243	$ 8.97	3.9	$ 237,803
Options assumed in an acquisition	1,891,349	1.75		
Options exercised	(9,734,153)	6.11		
Options forfeited/canceled	(420,465)	14.77		
Balance at the end of fiscal 2021	18,558,974	$ 9.60	4.3	$ 251,503
Vested and exercisable at the end of fiscal 2021	16,016,719	$ 9.92	3.8	$ 211,566

The aggregate intrinsic value of options vested and exercisable at the end of fiscal 2021 is calculated based on the difference between the exercise price and the closing price of $23.13 of our common stock on the last day of fiscal 2021. The aggregate intrinsic value of options exercised during fiscal 2019, 2020 and 2021 was $165.0 million, $106.6 million and $118.8 million.

The weighted-average grant date fair value of options assumed was $14.16 per share for fiscal 2021. The total grant date fair value of options vested during fiscal 2019, 2020 and 2021 was $45.6 million, $34.2 million and $20.1 million.

During fiscal 2019, 2020 and 2021, we recognized $32.0 million, $15.8 million and $8.6 million, of stock-based compensation expense related to stock options. At the end of fiscal 2021, total unrecognized employee stock-based compensation cost related to outstanding options was $17.5 million, which is expected to be recognized over a weighted-average period of 2.2 years.

Determination of Fair Value

The fair value of stock options granted to employees and to be purchased under ESPP is estimated on the grant date using the Black-Scholes option pricing model. This valuation model for stock-based compensation expense requires us to make assumptions and judgments about the variables used in the calculation including the fair value of the underlying common stock, expected term, the expected volatility of the common stock, a risk-free interest rate and expected dividend yield. The assumptions used for the periods presented are as follows:

	Fiscal Year Ended		
	2019	2020	2021
Employee Stock Options			
Expected term (in years)	n/a	n/a	5.65
Expected volatility	n/a	n/a	52.07%
Risk-free interest rate	n/a	n/a	0.3%
Dividend rate	n/a	n/a	—
Fair value of common stock	n/a	n/a	$15.79
Employee Stock Purchase Plan			
Expected term (in years)	0.5 - 2.0	0.5 - 2.0	0.5 - 2.0
Expected volatility	44% - 47%	42% - 47%	52% - 113%
Risk-free interest rate	2.0% - 2.8%	1.7% - 2.5%	0.1% - 0.4%
Dividend rate	—	—	—
Fair value of common stock	$20.62 - $27.66	$17.76 - $20.87	$9.07 - $15.26

The assumptions used in the Black-Scholes option pricing model were determined as follows.

Fair Value of Common Stock—We use the market closing price of our common stock as reported on the New York Stock Exchange to determine the fair value of our common stock at each grant date.

Expected Term—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 and ESPP purchase rights.

Expected Volatility—The expected volatility for ESPP purchase rights is based on the historical volatility of our common stock for a period equivalent to the expected term of the ESPP purchase rights.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero-coupon U.S. Treasury notes with maturities approximately equal to the expected term of the stock option grants and ESPP purchase rights.

Dividend Rate—We have never declared or paid any cash dividends and do not plan to pay cash dividends in the foreseeable future, and, therefore, use an expected dividend yield of zero.

RSUs

A summary of the RSU activity under our equity incentive plans and related information is as follows:

	Number of RSUs Outstanding	Weighted-Average Grant Date Fair Value	Aggregate Intrinsic Value (in thousands)
Unvested balance at the end of fiscal 2020	25,434,597	$ 18.72	$ 452,736
Granted	18,414,274	12.61	
Assumed in an acquisition	2,016,061	15.79	
Vested	(11,240,616)	16.90	
Forfeited	(3,794,234)	16.82	
Unvested balance at the end of fiscal 2021	30,830,082	$ 15.77	$ 712,657

During fiscal 2021, we granted 1,682,266 shares of performance RSUs, at a target percentage of 100%, with both performance and service vesting conditions payable in common stock, from 0% to 125% of the target number granted, contingent upon the degree to which the performance condition is met. A total of 1,406,681 shares were earned at the end of fiscal 2021 based on the performance condition achieved and these shares are subject to service conditions through the vesting periods. The remaining shares will be canceled in fiscal 2022.

The aggregate fair value, as of the respective vesting dates, of RSUs that vested during fiscal 2019, 2020 and 2021 was $184.8 million, $164.1 million and $183.4 million.

During fiscal 2019, 2020 and 2021, we recognized $119.9 million, $161.8 million and $199.1 million in stock-based compensation expense related to RSUs. At the end of fiscal 2021, total unrecognized employee compensation cost related to unvested RSUs was $428.5 million, which is expected to be recognized over a weighted-average period of 2.7 years.

Restricted Stock

A summary of the restricted stock activity under our 2015 Plan and related information is as follows:

	Number of Restricted Stock Outstanding	Weighted-Average Grant Date Fair Value	Aggregate Intrinsic Value (in thousands)
Unvested balance at the end of fiscal 2020	2,127,206	$ 19.58	$ 37,864
Vested	(1,252,405)	19.61	
Forfeited/canceled	(316,965)	20.38	
Unvested balance at the end of fiscal 2021	557,836	$ 19.06	$ 12,903

All unvested shares of restricted stock are subject to cancellation to the extent vesting conditions are not met. The aggregate fair value of restricted stock that vested during fiscal 2019, 2020 and 2021 was $3.6 million, $24.2 million and $18.3 million.

During fiscal 2019, 2020 and 2021, we recognized $23.3 million, $24.6 million and $9.3 million in stock-based compensation expense related to restricted stock. At the end of fiscal 2021, total unrecognized employee compensation cost related to unvested restricted stock was $2.6 million, which is expected to be recognized over a weighted-average period of approximately 0.9 years.

Stock-Based Compensation Expense

The following table summarizes the components of stock-based compensation expense recognized in the consolidated statements of operations (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
Cost of revenue—product	$ 2,951	$ 3,732	$ 4,001
Cost of revenue—subscription services	12,378	14,403	14,979
Research and development	92,484	107,658	117,220
Sales and marketing	66,350	67,560	65,248
General and administrative	36,482	33,352	40,896
Total stock-based compensation expense	$ 210,645	$ 226,705	$ 242,344

The tax benefit related to stock-based compensation expense for all periods presented was not material.

Note 13. Net Loss per Share Attributable to Common Stockholders

Basic and diluted net loss per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. Basic net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase. Diluted net loss per share attributable to common stockholders is computed by giving effect to all potentially dilutive common stock equivalents, including our outstanding stock options, common stock related to unvested RSUs, unvested restricted stock, our Notes to the extent dilutive, and common stock issuable pursuant to the ESPP. These potentially dilutive common stock equivalents have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is anti-dilutive.

In December 2018, all outstanding shares of Class B common stock converted to shares of Class A common stock pursuant to the terms of our amended and restated certificate of incorporation. The conversion did not impact our basic or diluted net loss per share attributable to common stockholders for fiscal 2019.

The following table sets forth the computation of basic and diluted net loss per share attributable to common stockholders (in thousands, except per share data):

	Fiscal Year Ended		
	2019	2020	2021
Net loss	$ (178,362)	$ (200,987)	$ (282,076)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	232,042	252,820	267,824
Net loss per share attributable to common stockholders, basic and diluted	$ (0.77)	$ (0.79)	$ (1.05)

The following weighted-average outstanding shares of common stock equivalents were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
Stock options to purchase common stock	39,928	31,315	23,180
Unvested restricted stock units	19,488	24,374	31,980
Unvested restricted stock	2,881	2,614	1,145
Shares related to convertible senior notes	17,867	21,884	21,884
Shares issuable pursuant to the ESPP	2,411	1,031	2,148
Early exercised stock options subject to repurchase	7	—	—
Total	82,582	81,218	80,337

Note 14. Other Income (Expense), Net

Other income (expense), net consists of the following (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
Interest income [1]	$ 18,013	$ 27,241	$ 17,442
Interest expense [2]	(21,615)	(27,897)	(31,403)
Foreign currency transactions (losses) gains	(5,230)	(3,396)	2,507
Other income	816	669	2,327
Total other income (expense), net	$ (8,016)	$ (3,383)	$ (9,127)

(1) Interest income includes interest income related to our cash, cash equivalents and marketable securities and non-cash interest income (expense) related to accretion (amortization) of the discount (premium) on marketable securities.

(2) Interest expense includes non-cash interest expense related to amortization of the debt discount and debt issuance costs and the contractual interest expense related to our debt.

Note 15. Income Taxes

The geographical breakdown of loss before provision for income taxes is as follows (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
Domestic	$ (145,428)	$ (212,672)	$ (312,119)
International	(31,845)	18,006	41,959
Total	$ (177,273)	$ (194,666)	$ (270,160)

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

	Fiscal Year Ended		
	2019	2020	2021
Current:			
State	$ 571	$ 538	$ 442
Foreign	4,214	7,774	8,006
Total	$ 4,785	$ 8,312	$ 8,448
Deferred:			
Federal	$ (2,776)	$ (1,559)	$ (218)
State	(920)	(198)	—
Foreign	—	(234)	3,686
Total	$ (3,696)	$ (1,991)	$ 3,468
Provision for income taxes	$ 1,089	$ 6,321	$ 11,916

The reconciliation of income taxes at the federal statutory income tax rate to the provision for income taxes is as follows (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
Tax at federal statutory rate	$ (37,227)	$ (40,880)	$ (56,734)
State tax, net of federal benefit	(469)	210	349
Stock-based compensation expense	(28,437)	(6,683)	(604)
Research and development tax credits	(10,371)	(11,033)	(14,138)
U.S. taxes on foreign income	—	—	14,021
Foreign rate differential	12,299	2,935	2,282
Change in valuation allowance	85,533	61,050	63,146
Foreign on-shoring intellectual property	(20,371)	—	—
Other	132	722	3,594
Provision for income taxes	$ 1,089	$ 6,321	$ 11,916

Deferred income taxes reflect the net effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The significant components of our deferred tax assets and liabilities were as follows (in thousands):

	At the End of Fiscal	
	2020	2021
Deferred tax assets:		
Net operating loss carryforwards	$ 232,155	$ 308,250
Tax credit carryover	76,209	104,247
Accruals and reserves	11,489	22,263
Deferred revenue	60,473	69,886
Stock-based compensation expense	31,906	28,310
Depreciation and amortization	18,893	120
Charitable contribution carryforwards	2,835	229
Interest expense limitation (163(j))	—	110
ASC 842 lease liabilities	25,197	33,302
Total deferred tax assets	$ 459,157	$ 566,717
Valuation allowance	(385,791)	(484,437)
Total deferred tax assets, net of valuation allowance	$ 73,366	$ 82,280
Deferred tax liabilities:		
Deferred commissions	$ (30,628)	$ (41,526)
Convertible debt	(11,226)	(8,147)
ASC 842 right-of-use assets	(23,502)	(29,183)
Acquired intangibles and goodwill	(10,421)	(8,727)
Other	(1,729)	(2,230)
Total deferred tax liabilities	$ (77,506)	$ (89,813)
Net deferred tax liabilities	$ (4,140)	$ (7,533)

In June 2019, a three-judge panel from the U.S. Court of Appeals for the Ninth Circuit overturned the U.S. Tax Court's decision in Altera Corp. v. Commissioner and upheld the portion of the Treasury regulations under Section 482 of the Internal Revenue Code that requires related parties in a cost-sharing arrangement to share expenses related to share-based compensation. On July 22, 2019, the taxpayer filed a petition for a rehearing before the full Ninth Circuit and the request was denied on November 12, 2019. On February 10, 2020, the taxpayer filed a petition to appeal the decision to the Supreme Court and on June 22, 2020 the Supreme Court denied the petition. Due to the Ninth Circuit's decision, we adjusted our net operating loss carryforward by $29.7 million in fiscal 2021 to reflect the reduction in losses for fiscal years 2017, 2018 and 2019. We terminated our intercompany cost sharing arrangement at the end of fiscal 2019. There is no impact on our effective tax rate for fiscal 2021 due to our U.S. full valuation allowance against our deferred tax assets.

At the end of fiscal 2021, the undistributed earnings of $82.2 million from non-U.S. operations held by our foreign subsidiaries are designated as permanently reinvested outside the U.S. Accordingly, no additional U.S. income taxes or additional foreign withholding taxes have been provided thereon. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable.

At the end of fiscal 2021, we had net operating loss carryforwards for federal income tax purposes of approximately $1,278.0 million and state income tax purposes of approximately $645.8 million. These net operating loss carryforwards will expire, if not utilized, beginning in 2028 for federal and state income tax purposes.

We had federal and state research and development tax credit carryforwards of approximately $75.6 million and $67.6 million at the end of fiscal 2021. The federal research and development tax credit carryforwards will expire commencing in 2028, while the state research and development tax credit carryforwards have no expiration date.

Realization of deferred tax assets is dependent on future taxable income, the existence and timing of which is uncertain. Based on our history of losses, management has determined that it is more likely than not that the U.S. deferred tax assets will not be realized, and accordingly has placed a full valuation allowance on the net U.S. deferred tax assets. The valuation allowance increased by $78.3 million and $98.6 million, respectively, during fiscal 2020 and 2021.

Utilization of the net operating loss carryforwards and credits may be subject to substantial annual limitation due to the ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization. In January 2021, we completed an analysis through the end of fiscal 2021 to evaluate whether there are any limitations of our net operating loss carryforwards and concluded that there was not a limitation that would result in the permanent expiration of carryforwards before they are utilized.

In March 2020, the “Coronavirus Aid, Relief and Economic Security (CARES) Act” was signed into law. The Act includes provisions relating to deferment of the employer portion of certain payroll taxes and permits NOL carryovers and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. The Company has determined that the NOL provisions will not impact the Company since the Company has been generating losses. The CARES Act allowed for the deferral of payment on the Company’s share of the 6.2% Social Security tax on certain wages paid in fiscal year 2021. Deferred amounts totaling $9.0 million will be due on December 31, 2021, and the remainder of $9.0 million due on December 31, 2022.

Uncertain Tax Positions

The activity related to the unrecognized tax benefits is as follows (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
Gross unrecognized tax benefits—beginning balance	$ 12,401	$ 18,891	$ 28,570
Decreases related to tax positions taken during prior years	(845)	(34)	(345)
Increases related to tax positions taken during prior years	—	408	1,881
Increases related to tax positions taken during current year	7,335	9,305	9,465
Gross unrecognized tax benefits—ending balance	$ 18,891	$ 28,570	$ 39,571

At the end of fiscal 2021, our gross unrecognized tax benefit was approximately $39.6 million, $2.3 million of which if recognized, would have an impact on the effective tax rate.

At the end of fiscal 2021, we had no current or cumulative interest and penalties related to uncertain tax positions.

It is difficult to predict the final timing and resolution of any particular uncertain tax position. Based on our assessment, including experience and complex judgments about future events, we do not expect that changes in the liability for unrecognized tax benefits during the next twelve months will have a significant impact on our consolidated financial position or results of operations.

We file income tax returns in the U.S. federal jurisdiction as well as many U.S. states and foreign jurisdictions. The tax returns for fiscal years 2009 and forward remain open to examination by the major jurisdictions in which we are subject to tax. The tax returns for fiscal years outside the normal statutes of limitation remain open to audit by tax authorities due to tax attributes generated in those early years, which have been carried forward and may be audited in subsequent years when utilized.

Note 16. Segment Information

Our chief operating decision maker is our Chief Executive Officer. Our chief operating decision maker reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. We have one business activity and there are no segment managers who are held accountable for operations or operating results. Accordingly, we have a single reportable segment.

Disaggregation of Revenue

The following table depicts the disaggregation of revenue by geographic area based on the billing address of our customers and is consistent with how we evaluate our financial performance (in thousands):

	Fiscal Year Ended		
	2019	2020	2021
United States	$ 979,454	$ 1,184,923	$ 1,195,428
Rest of the world	380,370	458,517	488,751
Total revenue	$ 1,359,824	$ 1,643,440	$ 1,684,179

Long-Lived Assets by Geographic Area

Long-lived assets, which are comprised of property and equipment, net, by geographic area are summarized as follows (in thousands):

	At the End of Fiscal	
	2020	2021
United States	$ 113,942	$ 152,859
Rest of the world	8,798	10,182
Total long-lived assets	$ 122,740	$ 163,041

Note 17. 401(k) Plan

We have a 401(k) savings plan (the 401(k) plan) which qualifies as a deferred salary arrangement under section 401(k) of the Internal Revenue Code. Under the 401(k) plan, participating employees may elect to contribute up to 85% of their eligible compensation, subject to certain limitations. We currently match 50% of employees' contributions up to a maximum of $4,000 annually. Matching contributions will be immediately vested. Our contributions to the plan were $1.4 million, $8.6 million and $10.2 million during fiscal 2019, 2020 and 2021.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our CEO and CFO concluded that, as of the end of fiscal 2021, our disclosure controls and procedures were designed at a reasonable assurance level and were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) and Rule 15d-15(f) of the Exchange Act. Internal control over financial reporting consists of policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) are designed and operated to provide reasonable assurance regarding the reliability of our financial reporting and our process for the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements. Our management evaluated the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control - Integrated Framework (2013)*. Based on the results of our evaluation, our management has concluded that our internal control over financial reporting was effective as of the end of fiscal 2021.

The effectiveness of our internal control over financial reporting as of the end of fiscal 2021 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which appears in Part II, Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fourth quarter of fiscal 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

In designing and evaluating the disclosure controls and procedures and internal control over financial reporting, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures and internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item is incorporated herein by reference to our definitive proxy statement for our 2021 annual meeting of stockholders (2021 Proxy Statement), which will be filed not later than 120 days after the end of our fiscal year ended January 31, 2021.

Item 11. Executive Compensation.

The information required by this item is incorporated herein by reference to our 2021 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is incorporated herein by reference to our 2021 Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item is incorporated herein by reference to our 2021 Proxy Statement.

Item 14. Principal Accounting Fees and Services.

The information required by this item is incorporated herein by reference to our 2021 Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a)(1) Consolidated Financial Statements

We have filed the consolidated financial statements listed in the Index to Consolidated Financial Statements, Schedules, and Exhibits included in Part II, Item 8, “Financial Statements and Supplementary Data” of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

All financial statement schedules have been omitted because they are not applicable, not material, or the required information is shown in the consolidated financial statements or the notes thereto.

(a)(3) Exhibits

The documents set forth below are filed herewith or incorporated herein by reference to the location indicated.

Exhibit Index

Exhibit Number	Description	Incorporation By Reference Form	SEC File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation.	10-Q	001-37570	3.1	12/11/2015
3.2	Amended and Restated Bylaws.	S-1	333-206312	3.4	9/9/2015
4.1	Form of Class A Common Stock Certificate of the Company.	S-1	333-206312	4.1	9/9/2015
4.2	Reference is made to Exhibits 3.1 and 3.2.	—	—	—	—
4.3	Indenture dated as of April 9, 2018 by and between Pure Storage, Inc. and U.S. Bank National Association, as Trustee	8-K	001-37570	4.1	4/10/2018
4.4	Form of Global Note, representing Pure Storage, Inc.'s 0.125% Convertible Senior Notes due 2023 (included as Exhibit A to the Indenture incorporated by reference as Exhibit 4.3 hereto)	8-K	001-37570	4.1	4/10/2018
4.5	Description of Registrant's Securities.	10-K	001-37570	4.5	3/27/2020
10.1+	Pure Storage, Inc. Amended and Restated 2009 Equity Incentive Plan.	S-1	333-206312	10.2	8/12/2015
10.2+	Forms of Grant Notice, Stock Option Agreement and Notice of Exercise under the Pure Storage, Inc. 2009 Equity Incentive Plan.	S-1	333-206312	10.3	8/12/2015
10.3+	Pure Storage, Inc. 2015 Equity Incentive Plan.	S-1	333-206312	10.4	9/9/2015
10.4+	Forms of Grant Notice, Stock Option Agreement and Notice of Exercise under the Pure Storage, Inc. 2015 Equity Incentive Plan.	S-1	333-206312	10.5	9/24/2015
10.5+	Form of Restricted Stock Unit Grant Notice and Award Agreement under the Pure Storage, Inc. 2015 Equity Incentive Plan.	10-K	001-37570	10.6	3/25/2016
10.6+	Form of Restricted Stock Award Grant Notice and Award Agreement under the Pure Storage, Inc. 2015 Equity Incentive Plan.	8-K	001-37570	10.1	3/16/2018
10.7+	Pure Storage, Inc. Amended and Restated 2015 Employee Stock Purchase Plan	10-Q	001-37570	10.1	8/30/2019
10.8+	Form of Indemnity Agreement, by and between Pure Storage, Inc. and each director and executive officer.	S-1	333-206312	10.7	9/9/2015
10.9+	Offer Letter, by and between Pure Storage, Inc. and Charles Giancarlo, dated August 22, 2017.	10-Q	001-37570	10.1	12/8/2017
10.10+	Transition Services, Separation & Release Agreement by and between Pure Storage, Inc. and Paul Mountford dated as of November 3, 2020.	10-Q	001-37570	10.14	12/9/2020
10.11+	Offer Letter by and between Pure Storage, Inc. and Kevan Krysler, dated November 15, 2019	10-Q	001-37570	10.2	12/9/2019
10.12+	Pure Storage, Inc. Change in Control Severance Benefit Plan.	10-Q	001-37570	10.12	12/9/2020
10.13	Credit Agreement, dated as of August 24, 2020 by and among Pure Storage, Inc., the Lenders party thereto and Barclays Bank PLC, as administrative agent, issuing bank and swingline lender.	10-Q	001-37570	10.13	9/11/2020

Exhibit Number	Description	Incorporation By Reference Form	SEC File No.	Exhibit	Filing Date
10.14+	Form of Restricted Stock Award Grant Notice and Award Agreement under the Pure Storage, Inc. 2015 Equity Incentive Plan	8-K	001-37570	10.1	3/16/2018
10.15+	Pure Storage, Inc. Employee Cash Incentive Plan.	8-K	001-37570	10.2	3/16/2018
21.1*	Subsidiaries of the Registrant.	—	—	—	—
23.1*	Consent of Deloitte & Touche LLP, independent registered public accounting firm.	—	—	—	—
24.1*	Power of Attorney (see signature page to this report).	—	—	—	—
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	—	—	—	—
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	—	—	—	—
32.1**	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	—	—	—	—
99.1	Form of Confirmation for Capped Call Transactions.	8-K	001-37570	99.1	4/10/2018
101.INS	XBRL Instance 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	—	—	—	—
104	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Inline XBRL document (included in Exhibit 101)	—	—	—	—

* Filed herewith.
** Furnished herewith.
\+ Indicates management contract or compensatory plan.

Item 16. Form 10-K Summary.

None.

SIGNATURES

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

Date: March 24, 2021

PURE STORAGE, INC.

By: /s/ Charles Giancarlo

Charles Giancarlo
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitute and appoint Charles Giancarlo, Kevan Krysler, and John Colgrove and each one of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in their name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1934, this Annual Report on Form 10-K has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Charles Giancarlo Charles Giancarlo	Chief Executive Officer, Chairman and Director *(Principal Executive Officer)*	March 24, 2021
/s/ Kevan Krysler Kevan Krysler	Chief Financial Officer *(Principal Financial and Accounting Officer)*	March 24, 2021
/s/ Scott Dietzen Scott Dietzen	Vice Chairman and Director	March 24, 2021
/s/ John Colgrove John Colgrove	Chief Technology Officer and Director	March 24, 2021
/s/ Andrew Brown Andrew Brown	Director	March 24, 2021
/s/ Mark Garrett Mark Garrett	Director	March 24, 2021
/s/ Jeff Rothschild Jeff Rothschild	Director	March 24, 2021
/s/ Anita Sands Anita Sands	Director	March 24, 2021
/s/ Roxanne Taylor Roxanne Taylor	Director	March 24, 2021
/s/ Susan Taylor Susan Taylor	Director	March 24, 2021
/s/ Greg Tomb Greg Tomb	Director	March 24, 2021

Exhibit 21.1

SUBSIDIARIES OF THE REGISTRANT

The following is a list of significant and other subsidiaries of Pure Storage, Inc.

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Portworx Inc.	Delaware
Pure Crowns Sweden Holding AB	Sweden
Pure Storage Australia Pty Ltd	Australia
Pure Storage Austria, GmbH	Austria
Pure Storage Belgium BVBA	Belgium
Pure Storage do Brasil Solucoes e Servicos de Armazenamento de Dados Ltda	Brazil
Pure Storage Canada Limited	Canada
Pure Storage Czech Republic s.r.o.	Czech Republic
Pure Storage France SARL	France
Pure Storage Germany GmbH	Germany
Pure Storage Holdings, Inc.	Delaware
Pure Storage HK Ltd	Hong Kong
Pure Storage India Private Limited	India
Pure Storage International, Inc.	Delaware
Pure Storage International Limited	Ireland
Pure Storage Italy, SRL	Italy
Pure Storage Japan KK	Japan
Pure Storage Korea Co Ltd	South Korea
Pure Storage LLC	Delaware
Pure Storage Malaysia SDN BHD	Malaysia
Pure Storage Mexico S. de R.L. de C.V.	Mexico
Pure Storage Netherlands BV	Netherlands
Pure Storage New Zealand Limited	New Zealand
Pure Storage Poland sp. z o.o.	Poland
Pure Storage (RUS) Limited Liability Company	Russia
Pure Storage Singapore Pte Ltd	Singapore
Pure Storage South Africa (Pty) Ltd	South Africa
Pure Storage Spain, SLU	Spain
Pure Storage Sweden AB	Sweden
Pure Storage Switzerland GmbH	Switzerland
Pure Storage Bilgi Teknolojileri Limited Şirketi	Turkey
Pure Storage Ltd (UK)	United Kingdom

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-207315, 333-210417, 333-220396, 333-223927, 333-230248, 333-233587, 333-237418, and 333-249199 on Form S-8 of our reports dated March 24, 2021, relating to the consolidated financial statements of Pure Storage, Inc. and subsidiaries (the “Company”), and the effectiveness of the Company’s internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended January 31, 2021.

/S/ DELOITTE & TOUCHE LLP

San Jose, California

March 24, 2021

Exhibit 31.1

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
EXCHANGE RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Charles H. Giancarlo, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pure Storage, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	March 24, 2021	By:	/s/ Charles H. Giancarlo
			Charles H. Giancarlo
			Chief Executive Officer
			(Principal Executive Officer)

Exhibit 31.2

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
EXCHANGE RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Kevan Krysler, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pure Storage, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	March 24, 2021	By:	/s/ Kevan Krysler
			Kevan Krysler
			Chief Financial Officer
			(Principal Financial Officer)

Exhibit 32.1

**CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Charles H. Giancarlo, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Pure Storage, Inc. for the fiscal year ended January 31, 2021, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Pure Storage, Inc.

Date:	March 24, 2021	By:	/s/ Charles H. Giancarlo
			Charles H. Giancarlo **Chief Executive Officer** **(Principal Executive Officer)**

I, Kevan Krysler, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Pure Storage, Inc. for the fiscal year ended January 31, 2021, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Pure Storage, Inc.

Date:	March 24, 2021	By:	/s/ Kevan Krysler
			Kevan Krysler **Chief Financial Officer** **(Principal Financial Officer)**

The foregoing certifications are not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and are not to be incorporated by reference into any filing of Pure Storage, Inc. under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing.