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

FORM 10-K

(Mark One)

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

For the fiscal year ended February 5, 2023

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.

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. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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 5, 2022, the last business day of the registrant's most recently completed second quarter, was approximately $8.3 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 24, 2023, the registrant had 308,045,301 shares of Class A common stock outstanding.

Documents Incorporated by Reference

Portions of the registrant's proxy statement for its 2023 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 February 5, 2023.

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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 macroeconomic conditions, including, among other issues, high inflation, rising interest rates, current banking crisis, and a slowdown in demand, 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 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, the potential disruptions to our contract manufacturers or supply chain, our expectations concerning relationships with third parties, including our partners, customers, suppliers, and contract manufacturers, the success of the Portworx acquisition and technology, the adequacy of our intellectual property rights, expectations concerning potential legal proceedings and related costs, and the impact of adverse economic conditions 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' business transformation, and we are focused on delivering innovative and disruptive data storage, products and services that enable customers to maximize the value of their data.

We are a global leader in data storage and management with a mission to redefine the storage experience by simplifying how people consume and interact with data. Our vision integrates our foundation of simplicity and reliability with three major market trends that are impacting all organizations large and small: (1) adoption of the cloud operating model everywhere; (2) the increase of modern cloud-native applications; and (3) the shift to modernizing today's data infrastructure with all-flash.

Our products and subscription services support a wide range of structured and unstructured data, at scale and across any data workloads in hybrid and public cloud environments, and include mission-critical production, test and development, analytics, disaster recovery (DR), and backup and recovery.

Differentiated Technology

Innovation and technology leadership is core to our culture, products and services, and future growth strategies. We have developed highly differentiated technology that is the foundation of our portfolio to create significant and sustainable competitive advantages.

Flash Software and Integrated Hardware Leadership

We pioneered the use of solid-state, All-Flash technology in enterprise storage with a clean-slate approach to building Flash-based systems and have continued to expand our leadership position and technology differentiation across our tightly integrated software and hardware.

Our **Purity Software** was designed from the ground-up to maximize the benefits of solid-state storage. By focusing on All-Flash, our Purity software is able to deliver superior performance, reliability, cost, density and environmental sustainability efficiencies.

- **Performance** - Purity optimizes how data is placed and accessed on Flash to dramatically reduce the overheads and inefficiencies introduced by solid state drives (SSDs), allowing us to drive both higher performance and greater predictability.
- **Reliability** - Purity also makes it possible to optimize the use of Flash in our systems. This translates directly into high reliability and durability as well as longer service lifetimes of our arrays.
- **Efficiency** - Designed-for-flash algorithms and data structures allow us to deliver significantly higher storage efficiency from Flash than magnetic disk-based software by reducing over-provisioning or wasted Flash that would otherwise be needed. Our Purity software also delivers data reduction (e.g., compression and deduplication) creating significant savings and efficiencies for our customers.
- **Environmental Benefits** - Our Flash-optimized integrated hardware and software enables our products to deliver the same amount of data storage requiring significantly less power, space, cooling and e-waste when compared to both magnetic disk and competitive all-flash systems.

Our Purity software is shared across our products and provides leading enterprise-class data services such as always-on data-reduction, data protection and encryption, as well as a wide range of storage protocols such as block, file and object.

The advantages unlocked by our Purity software are significantly amplified by our integrated *DirectFlash* hardware technology. With *DirectFlash*, we build Flash Modules designed to work directly with NAND Flash chips, highly integrated and optimized for our Purity software. This deep integration of hardware and software allows us to be a proven leader in all-flash performance, reliability and efficiency from mainstream triple-level cell (TLC) flash and capacity-oriented quad-level cell (QLC) flash that delivers unparalleled density.

While QLC can make flash more economical, it requires significantly more sophisticated management, optimization and tuning to use effectively. With *DirectFlash*, we deliver the performance and density benefits of QLC flash, without compromising on efficiency, reliability or performance consistency. With *DirectFlash*, we are leading the industry, allowing us to accelerate the transition of disk to flash by replacing low-cost hybrid-flash and disk arrays. We have further extended this leadership by enabling customers to harness the cost efficiency of QLC while taming issues that SSD manufacturers have struggled with for years. In close collaboration with key QLC flash partners, we intend to drive our density roadmap for DirectFlash from the current 48TB to 300TB, building a 5x density advantage over our competition leveraging SSDs. Our increasing density roadmap for *DirectFlash* also substantially expands our cost and power efficiency advantages when compared to both disk and SSDs.

Evergreen Architecture

Our differentiated *Evergreen* architecture means that our products do not become obsolete or require wholesale replacement like traditional systems. *Evergreen* allows our arrays to be upgraded non-disruptively, enabling our customers to continuously benefit from the latest hardware and software technology, significantly reducing costly and unnecessary product replacements and associated e-waste. Several key technology elements are required to deliver on our *Evergreen* promise:

- **Future-proof Hardware** - We design and build our hardware platforms for higher reliability and longer service lifetimes to provide our customers the maximum benefit of Flash. Our hardware platforms are designed for each component (e.g. storage controllers, flash modules) to be independently replaceable and upgradable, allowing customers to have access to continuous and ever-improving hardware technology without requiring a wholesale replacement.
- **Non-Disruptive Upgrades** - A critical technology that allows us to keep customer systems continually up-to-date is the ability to upgrade both hardware and software completely non-disruptively. Continuous online improvement, without creating disruption or affecting running production systems, is required for customers to realize the full benefits of *Evergreen* and are a critical underpinning of delivering a full as-a-Service experience.
- **Telemetry and Pure1** - Continuous telemetry collection coupled with intelligent analytics supported by machine learning models allow us to proactively address issues before they occur. This capability delivers both predictive and proactive recommendations, targeted assessments, and workload planning based on knowledge accumulated across our entire fleet. Pure1 allows us to target and focus the most relevant innovation and improvements to our customers, delivered through *Evergreen*.

Sustainable Technology

Energy reduction and minimizing e-waste is a core part of our business strategy. We continue to invest in and innovate for a carbon-constrained world and are committed to continue delivering products and services that empower our customers to operate sustainably and efficiently while also gaining maximum productivity from their IT investments and reducing costs. Our technology differentiators deliver significant environmental sustainability benefits. *DirectFlash* allows us to build the most efficient and densest flash modules which has a direct effect on both cost and power efficiency - by providing higher capacity storage on a smaller hardware footprint, we lower the costs of our systems as well as their environmental footprint.

Our product platforms and solutions when compared to our competitors have significantly lower power consumption and e-waste contributing to our customers' achieving their own Environmental, Social and Governance (ESG) objectives.

The environmental benefits of this approach are outlined in our ESG report, which shows that our arrays are more energy efficient than competitive all-flash products. Additionally, two key environmental benefits of our Evergreen architecture include the reduction of both wasted energy and e-waste through non-disruptive upgrades and increased lifespan of our products. For more information about the ESG benefits of our technology, see our ESG report at https://www.purestorage.com/company/corporate-social-responsibility.html. This website reference is provided for convenience only, and the content on the referenced website is not incorporated by reference into this report.

Products and Subscription Services

Modernizing Infrastructure

We are leading the way to modernize storage infrastructure in our relentless pursuit of delivering the All-Flash Data Center.

- **FlashArray Platform** provides solutions for block-oriented storage, addressing database, application, virtual machine and other traditional workloads. *FlashArray* was the industry's first all-flash array and is driving the industry-wide transition from disk to Flash. *FlashArray* pioneered the approach of software designed from the ground-up for Flash and set the stage for industry leading simplicity, reliability, and rich data services. *FlashArray* has evolved through seven generations of controllers, a 100x increase in density, and a transition to all-NVMe flash - all delivered to customers non-disruptively through our *Evergreen* service.
    - ***FlashArray//C*** delivers the benefits of NVMe flash, performance and consolidation to simplify Tier-2 storage estates. *FlashArray//C* extends the core technology of *FlashArray* and *DirectFlash* technology to incorporate QLC flash to modernize and replace hybrid-flash and Tier-2 disk arrays. The benefits of QLC delivered by *FlashArray//C* are only achievable through our *DirectFlash* integrated hardware and software approach, and places us in a unique and differentiated position to accelerate the transition from disk to flash.
    - ***FlashArray//XL***, our latest addition to the family, sets a new bar of higher performance, scale and capacity for the most demanding workloads.
    - ***FlashArray File Services***.delivers enterprise level multi-protocol file storage on FlashArray. As part of an unified approach to block and file data management, File Services reduces operational overhead by giving storage administrators policy driven automated management at the director, share, or virtual machine (VM) level. File Services delivers simplicity of management to a broad set of scale-up file data workloads including user data and department shares, content repositories such as Picture Archiving and Communication System (PACS) and video data, file-based applications, and now Network File System (NFS) datashares for virtual infrastructure.
- **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. *Cloud Block Store* is software-delivered, requires no dedicated hardware running in the public cloud or internet colocation data centers, and is designed to be multi-cloud, presently supporting Amazon Web Services and Microsoft Azure. *Cloud Block Store* is based upon the same Purity software that powers *FlashArray* in on-premise environments, enabling customers to easily implement hybrid cloud workflows.
- **FlashBlade Platform** provides solutions for unstructured data workloads of all types - from the most demanding modern "big data" applications such as real-time and log analytics, artificial intelligence (AI), commercial High Performance Computing (HPC) to data protection and recovery. *FlashBlade* was the industry's first all-flash array optimized for modern unstructured file and object applications, and enables performance at multi-Petabyte scale. *FlashBlade* is a scale-out system built on hardware and software technology that *FlashArray* also shares, combining integrated software-defined networking that delivers revolutionary performance and simplicity. *FlashBlade's* scale, simplicity, and multiple protocols allows customers to consolidate a diverse set of modern workloads while benefiting from cost-effective all-flash performance.
    - ***FlashBlade//S***, the next generation of the product, was introduced in fiscal 2023 with a new architecture that disaggregates resources to allow customers to scale in any direction, enabling a more diverse set of workloads.
    - ***FlashBlade//E***, a scale-out unstructured data repository that will be generally available by the end of April 2023, is built to handle exponential data growth with industry-leading energy efficiency. Priced at under $0.20 per gigabyte including three years of Evergreen service with consumption up to five times less power than the hard disk systems that it will replace, *FlashBlade//E* provides an acquisition cost that is competitive to disk with lower operational costs.

Modernizing Operations

We are committed to helping customers modernize their operations by delivering modern cloud-oriented services, management and automation to customers across their on-premises, private and public cloud environments. These elements form what we call the Cloud Operating Model delivered through our Evergreen architecture.

- Our ***Evergreen*** **Subscription** family of services includes *Evergreen//Forever, Evergreen//Flex and Evergreen//One* which leverages our **Evergreen Storage** architecture. This allows us to modernize technology and seamlessly deliver new software and hardware components as customers upgrade and expand their storage needs.
    - *Evergreen* subscription services allows us to modernize our customer's arrays (hardware and software), delivering improvements in software, flash and CPU technology without disruption or downtime.
    - Renewal pricing for our *Evergreen* subscription services is "Flat and Fair," which means that our customers do not need to worry that we will increase the price of these valuable services at renewal.
    - *Evergreen* subscription services includes Pure1, our cloud-based management and support offering which allows us to deliver predictive and proactive insights that identify potential issues before they occur and provide intelligent advice on workload, capacity and performance based on machine-learning models.
    - Our *Evergreen* subscription services is a key driver of customer satisfaction (reflected in our industry-leading Net Promoter Score).
- ***Evergreen//Flex*** is a fleet-level Evergreen architecture that offers users the advantage of storage hardware ownership with a lower upfront cost and a flexible pay-as-you-go subscription. *Evergreen//Flex* provides the flexibility and adaptability to move performance and stranded capacity to where data and applications need it most, with the security and control that comes from ownership of the solution. This latest model brings the modernization of *Evergreen//Forever* beyond the box, and is an efficient way to run a fleet of storage enabled by an asset utilization model.
- ***Evergreen//One*** is our service offering built on our *Evergreen Storage* architecture which allows us to deliver data storage to customers by leveraging a cloud operating model and service-level-agreements (SLAs). In fiscal 2023, we included an energy efficiency SLA in *Evergreen//One* guaranteeing a maximum number of actual watts per tebibyte (TiB). Powered by *FlashArray*, *FlashBlade* and *Cloud Block Store*, *Evergreen//One* unifies on-premises and public-cloud storage services in a single storage subscription service that delivers a true hybrid cloud experience. With *Evergreen//One*, customers have flexibility to choose performance and capacity needs as well as where they consume and pay for their storage needs.
- ***Pure Fusion*** brings the simplicity of the cloud operating model anywhere with on-demand consumption and back-end provisioning, delivering an autonomous storage-as-code management platform. *Pure Fusion* is delivered through a Software-as-a-Service (SaaS) management plane and enables storage administrators to unify storage arrays and optimize storage pools. *Pure Fusion* allows administrators to offer storage through customized storage service classes providing storage consumers on-demand API-access to storage services, while automating previously complex tasks, such as storage provisioning, workload placement, workload mobility, and fleet rebalancing.

Modernizing Applications

We are focused on helping customers modernize their applications- whether it is meeting the needs of modern unstructured data applications or supporting container-based cloud-native applications with the most robust and complete Kubernetes data platform.

- ***Portworx*** **by Pure Storage** is the market leader in cloud-native Kubernetes data management. As most modern and new software development is shifting to cloud-native architectures, *Portworx* is the only data management platform that is able to provide robust enterprise-grade container-storage, coupled with data-protection workflows such as Kubernetes backup, DR and migration, and allows customers true portability between on-premise, hybrid cloud and multi-cloud environments. The entire Portworx suite, inclusive of Portworx Enterprise, PX-Backup, and Portworx Data Services, is available as-a-service.

- ***Portworx Data Services* (*PDS*)** is the industry's first Database-as-a-Service Platform for Kubernetes. Modern applications are composed of dozens or even hundreds of microservices, often supported by multiple data services. Managing each of these data services in a dynamic, Kubernetes world is complex and time-consuming. With *PDS*, DevOps engineers can deploy managed, production-grade data services with the click of a button, on and across private and public clouds. With deployment options from the industry's broadest catalog of databases for SQL, NoSQL, search, streaming, and more, *PDS* helps developers get started faster. *PDS* also fully automates Day-2 operations, including monitoring, backups, high availability, DR, migration, auto-scaling, and security.

Our Strategic Growth Pillars

Our growth pillars are driven by two significant secular trends - continued transition from disk to flash, and the cloud-driven adoption of cloud-native applications and the cloud operating model.

Our multi-faceted cloud business objectives include: (i) to be a leader in enabling cloud-native applications; (ii) enable portability of data services and applications across on-premise and cloud-environments; (iii) deliver the full cloud operating model - on-premises and across public clouds; and (iv) lead the transition from disk to flash in the hyperscalers and cloud providers.

Our four strategic growth pillars are described below.

Grow our subscription services business and drive differentiation with as-a-Service and Cloud operating model

We are leading in the storage as-a-service market. We are outperforming the market because we are focused on providing these services through our technology rather than merely creating a financial and professional services construct.

We pioneered the *Evergreen* upgradable architecture that brings the benefits of the cloud operating model to an on-premises storage purchase. *Evergreen//One* extends the *Evergreen* architecture and subscription to deliver storage to customers as capacity and performance SLAs in a much more flexible, optimized and efficient manner.

Expand All-Flash into new use cases served by disk today

We continue to drive industry disruption by further expanding flash into historical disk use cases, leveraging our flash software leadership, currently with QLC. We see a tremendous growth opportunity as Flash economics coupled with the growth in unstructured data disrupt the current hybrid and mechanical disk market. For instance, *FlashBlade//E*, a scale-out unstructured data repository built to handle exponential data growth with industry-leading energy efficiency will be priced at under $0.20 per gigabyte including three years of Evergreen service.

Our extended advantage stems from three technology differentiators: Our leadership with direct-to-NAND software, our integrated hardware/software direct flash modules, and our data reduction capabilities. Because of our highly sophisticated Flash management software requiring less NAND, we drive significant efficiency advantages over SSDs by eliminating over-provisioning, extending endurance and requiring far less common equipment.

Modern unstructured data workloads, including artificial intelligence/machine learning (AI/ML), genomics, Internet of Things (IoT), self-driving vehicles, and analytics, are some of the largest generators of data. They require not just performance and scale, but dozens of applications working with that data along the way as it is collected, indexed, processed and analyzed. It requires unifying unstructured data access, which is inherent in our *FlashBlade* product, across file and object protocols, across input/output (I/O) types, and across application demands.

FlashBlade, combined with our multi-year advantage in flash technology and our leadership with *Portworx*, puts us in a unique position to win at the confluence of the growth of unstructured data and modern applications.

Deliver hybrid cloud architecture and data services for modern applications

We are extending our leadership position in delivering the cloud operating model and enabling cloud-native applications. We are empowering our customers to run and operate storage as-a-service, for both traditional and modern applications. We are committed to delivering a hybrid cloud architecture and advancing in the high-growth space of cloud-native applications. Our *Portworx* software product is the leader in the enterprise Kubernetes/ container data space, providing customers a secure solution to both their primary container storage needs, as well as their critical data workflows like backup, DR and migration.

Portworx, along with *Cloud Block Store*, allows us to help customers make their hybrid-cloud real by enabling them to run and deploy both traditional and cloud-native apps on-premise and in-cloud with the same process and operations.

Pure Fusion and *PDS* extend our promise to deliver a true hybrid cloud architecture to hybrid environments. *Pure Fusion* extends the cloud operating model by automating the delivery of our storage offerings with a Kubernetes-delivered control plane. *PDS* creates another first mover advantage as we enable IT departments of our customers to provide and manage sophisticated data services with rapid deployment, scaling, management and self-service onboarding for their line of business users.

Gain market share in the core block All-Flash market through innovative leadership

We aim to take market share and outgrow the competition in the core all-flash block market with a proven "Simplicity at Scale" strategy, our highly differentiated customer experience with our *Evergreen* construct, and additional enterprise and service provider features and capabilities. Our core technology is also charting the path in the hyperscale and large enterprise environments for mainstream flash adoption which were previously dominated by mechanical / spinning disk.

Our Customers

Our global customer base is over 11,000 at the end of fiscal 2023. Both large enterprises and smaller organizations with limited IT expertise or budgets 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.

Our enterprise business model supports the largest global organizations, including hyperscalers and managed service providers (MSPs). Today, we are in approximately 58% of Fortune 500 companies, and the loyalty of our customers is reflected in our market-leading, certified customer Net Promoter Score (NPS) of 81.4 as of December 31, 2022.

Sales and Marketing

Sales. We sell our products and subscription services using a direct sales force 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 VMWare, Microsoft, Oracle and SAP, cloud partners such as Microsoft Azure, AWS,Google, and IBM, data protection partners such as Cohesity, Commvault and Veeam and infrastructure partners such as Cisco and NVIDIA. 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, Prague, Czech Republic, Bangalore, India, Bellevue, Washington, and Vancouver, Canada. 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. We continue to face various supply-chain challenges which ultimately could negatively impact our contract manufacturers and suppliers to source parts and build and deliver our products in a timely manner. Our supply chain challenges also include pricing pressure for certain materials as well as logistics. We work closely with our contract manufacturers to meet our product delivery requirements and to manage the manufacturing process and quality control. We also utilize a range of training and assessment tools from the Responsible Business Alliance to support continuous improvement in the social, environmental and ethical responsibility of our supply chain.

Seasonality

We generally experience seasonality as sales of our products and subscription services are usually 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 and service innovation, features and enhancements, including ease of use, performance, reliability, scalability, and security;
- Product and service pricing and total cost of ownership;
- Product interoperability with customer networks and backup software;
- Product designs that help customers reduce their carbon footprint and contribute to meeting their environmental sustainability and savings goals;

- Global sales and distribution capability, including an ability to build and maintain incumbent customer relationships;
- Ability to take advantage of improvements in industry standard components; and
- Customer support and service.

We believe we compete favorably with our competitors on these factors as we continue to take market share. 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 2,500 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 People and Organization

We are committed to demonstrating our core values—customer-first, persistence, creativity, teamwork, and ownership — and we believe that the interplay of strategy, organization, talent, and culture enables us to achieve outstanding results for all of our stakeholders.

We employ over 5,100 employees globally - approximately 3,400 in the U.S. and over 1,700 internationally as of the end of fiscal 2023. Our workforce is distributed across over 30 countries and we continue to expand our location strategy to ensure we can obtain the right skills and have a global mindset with diversity of thinking. Our business growth presents us with the opportunity to attract talent and provide competitive employee value propositions in terms of work environment, pay, benefits, professional development and career growth opportunities that help meet the varying needs of our workforce.

Our human capital strategy is developed by our executive committee and led by our Chief Human Resources Officer (CHRO). The CHRO delivers human capital reports to our Board of Directors and compensation and talent committee on a quarterly basis.

Attracting, Developing and Retaining Talent

In fiscal 2023, we grew headcount by approximately 22%, predominantly to advance our innovation, customer experience, and sales coverage.

To foster our employees' and our success, we seek to create an environment where people can thrive and can do their best work. We strive to maximize the potential of our human capital resources by creating a respectful, inclusive work environment with training and development programs that enables our global employees to create products and services that furthers their career goals and our corporate mission. We also have global performance management, and internal mobility programs to enable employee development, growth and performance.

Diversity, Equity, and Inclusion (DEI)

We continue to make strides to advance DEI. We believe that "walking the talk" on DEI is not only the right thing to do, but it results in stronger innovation, improved workplace culture and a stronger bottom line. Some of our efforts on DEI include:

- ***Advancing DEI from the top.*** In 2022, we launched the Inclusive Leadership Index (ILI) to recognize role model behaviors among our leaders at the VP level and above using several defined DEI factors. Annually, the leaders who attain role model results, according to the ILI, are recognized and given the opportunity to share their best practices internally.
- ***Supporting employee community and connection.*** Our Employee Resource Groups (ERGs) are a critical way to advance inclusion and belonging through building strong community, connection and opportunities for development among our employees.
- ***Driving equitable talent processes, pay and promotions.*** Our talent management processes include specific steps that ensure our performance reviews are equitable by level. We review pay equity twice a year. In addition we strive to ensure appropriate representation in candidate slates and interviewer panels during the hiring process. We also monitor the career progression ratio of female and underrepresented groups (URGs) versus the overall workforce to ensure equitable promotion practices.

We report on the metrics and progress in the areas mentioned above with our Board of Directors.

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 and equity awards as well as health and welfare benefits to employees. We offer a comprehensive and tailored set of benefits to employees and their families. Our total rewards efforts include:

- ***Support for all stages of life***. From early career to retirement, we offer comprehensive and inclusive benefits to employees and their families for all stages including parental and adoption leave.
- ***Wellness benefits and programs***. We encourage employees to practice self-care and proactively manage their mental and physical health. We support employee wellness through customizable programs and offerings ranging from mental health coaching, therapy, as well as nutrition and exercise programs. Employee wellness is also supported through our flexible time off policy.

Our Culture as a Competitive Advantage

Our customer-first culture and commitment to innovation create a thriving company that customers, partners, employees and investors love. Employee listening tools and data sources indicate that our high employee engagement is a key enabler of the positive customer experience and strong net promoter scores. Our Employee Voice Survey is implemented and assessed through a third party vendor. It focuses on measuring employee engagement, organization, team and manager effectiveness, equity, inclusion and belonging, career development and mental health. Our employee NPS has been consistently high since we started this survey a few years ago.

A key tenant of our culture is our commitment to integrity, respect and a safe work environment which is supported by our Speak Up Policy, Code of Conduct, and annual Culture of Compliance survey. We continually remind our employees that they are empowered to report concerns without fear of retaliation through our anonymous speak-up hotline and web portal or through their management chain, HR business partner, or Legal team.

Environmental, Social and Governance (ESG)

We are committed to advancing our responsible ESG practices and impact across three key pillars: our technology, our operations, and our people. Our ESG pillars and priority focus areas are informed by an internal ESG prioritization assessment completed in 2021, which assessed topics based on their potential impact to both our own enterprise value creation and the environment and society more broadly. Our ESG governance model is structured to ensure the appropriate amount of oversight, assessment, and management of ESG risks and opportunities across our organization. Our Board of Directors provides oversight of each pillar through its committees, with the Audit and Risk Committee overseeing Environment, the Compensation and Talent Committee overseeing Social and the Nominating and Corporate Governance Committee overseeing Governance. In addition, our Board of Directors receives an annual update on ESG practices and our progress in tracking towards our goals.

Our ESG executive sponsors are the Chief Financial Officer, Chief Legal Officer and Chief Technology Officer. They meet regularly and work through VP and director level leaders who lead our internal ESG committees responsible for assessing, managing and progressing the integration of ESG priorities throughout our business operations.

In fiscal 2023, we continued quantifying our greenhouse gas (GHG) emissions across scope 1, 2, and 3 and made a commitment to set Science Based Targets (SBTi). We completed a Life Cycle Analysis (LCA) assessment, in accordance with ISO 14040 and 14044 and continue to identify opportunities to reduce the environmental impact of our products and solutions. We remain committed to progressing on each of our key ESG initiatives, creating value with minimal environmental harm. For more information about our key ESG initiatives, our progress on aligning to the Task Force on Climate-related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB) as well as other key standards and frameworks, see our ESG report at https://www.purestorage.com/company/corporate-social-responsibility.html.

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

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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, and cash flows may be adversely impacted by uncertain macroeconomic conditions, including, among other issues, high inflation, rising interest rates, the current banking crisis and a slowdown in demand.
- Our sales cycles can be long, unpredictable and expensive, particularly during a global economic slowdown, making it difficult for us to predict future sales.
- We face intense competition from established companies and new entrants.
- If we do not manage the supply of our products and their components efficiently, our results of operation could be adversely affected.
- 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 execute our transition to subscription offerings successfully, our revenues and results of operation may be harmed.
- If our security measures are compromised, or the security, confidentiality, integrity or availability of our information technology or data is compromised, our business could experience a material adverse impact.
- Our gross margins are impacted by a variety of factors and vary from period to period, making them difficult to predict with certainty.
- 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.
- 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.

Risks Related to Our Business and Industry

Our business, operating results, and cash flows may be adversely impacted by uncertain macroeconomic conditions, including, among other issues, high inflation, rising interest rates, the current banking crisis and a slowdown in demand.

Recent events and trends, including high inflation, rising interest rates, and the current banking crisis, as well as supply chain constraints and labor shortages and geopolitical tensions involving China, are affecting budgets and confidence and demand among our customers, particularly in the United States where we derive the majority of our revenue. While we have little to no exposure to regional, midsize or small banks, these pressures create a great deal of uncertainty and affect customer demand and our margins, costs and operations. Macroeconomic conditions can and do further exacerbate other risks discussed in this "Risk Factors" section, such as risks related to our sales and marketing efforts. If we are unable to successfully manage the effects of these pressures, our business, operating results, cash flows and financial condition may be adversely affected.

Our sales cycles can be long, unpredictable and expensive, particularly during a global economic slowdown, 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 an evaluation process that can result in a lengthy sales cycle, particularly for larger customers and especially in an economic slowdown. We spend substantial time and resources on our sales efforts without any assurance that our efforts will produce any sales. Macroeconomic concerns and the pandemic have impacted our sales efforts, such as by shifting customer priorities and reducing 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.

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. Some customers are shifting spending toward the public cloud and software as a service, as well as other storage deployment models. 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 and priorities 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.

The 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, scalability and other enterprise features of storage systems. Our future financial performance depends on our ability to adapt to competitive dynamics and emerging customer demands and trends. We continue to expand our large capacity data storage products to compete directly with hard disk systems, and that strategy may take longer or may not be successful due to unforeseen factors. The enhancement 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.

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. 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.

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 exacerbate other risk factors and 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. If we are unable to obtain components from our existing suppliers, we may need to obtain these components through secondary sources or markets which could result in higher costs, delays and/or components which do not meet our quality requirements. While we actively monitor and manage our supply chain, we cannot anticipate the potential impact that a variety of factors, such as COVID-19 restrictions, 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, and may continue to be, significant changes to U.S. trade policies, legislation, treaties and tariffs, including announcements of import tariffs and export restrictions. As new legislation and/or regulations are implemented, existing trade agreements are renegotiated or terminated, and trade restrictions and 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 impact our business negatively or require us to enter into longer-term contracts to obtain components. Any of the foregoing disruptions could exacerbate other risk factors and 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 and has become increasingly difficult, in part, due to supply chain constraints, component quality and inflationary pressure. 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 exacerbate other risk factors and 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.

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 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.

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, functionality 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 innovate business models such as *Evergreen//One* to maintain or expand our competitive position. We continue to expand our large capacity data storage products to compete directly with hard disk systems. 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 *Evergreen//One* 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 require different accounting of our customer transactions, such as changing how we recognize revenue and capitalize commissions, among other things. In addition, these business models may require compliance with additional regulatory, legal and trade licensing requirements in some countries. 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 will cause us to incur incremental operational, technical, legal and 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 or bugs, which could cause data unavailability, loss, breach 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. We have, from time to time, identified vulnerabilities in our products. Despite our efforts to detect and remediate actual and potential vulnerabilities in our systems, we cannot be certain that we will be able to address any such vulnerabilities, in whole or part, and there may be delays in developing and deploying patches and other remedial measures to adequately address vulnerabilities. We may also incur unexpected costs associated with replacing defective hardware or ensuring that hardware remains interoperable and upgradable. Any of these errors, defects, bugs or security vulnerabilities may leave us, our products and our customers susceptible to exploitation, including by malicious actors. 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 customer experience offerings, and any failure to offer high-quality technical services and support could harm our business.

Once our products are deployed by our customers, customers depend on our customer experience organization to drive non-disruptive upgrades and resolve technical issues relating to our products. Our ability to provide effective technical services 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 services 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 technical services and support could harm our reputation, our ability to sell our products to existing and prospective customers and our business.

Risks Related to Our Operating Results or Financial Condition

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

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 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, product warranty, order rescheduling and cancellations;
- the timing of technical support service contracts and contract renewals;
- inventory stocking requirements to mitigate supply chain constraints, accommodate unforeseen demand or support new product introductions; and
- inflation and other adverse economic pressures.

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;
- the impact on timing and amount of revenue recognized resulting from the cancellation of unfulfilled orders by our customers or our inability to fulfill orders;
- 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, shipping logistics, 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 or mitigate costs, including our operating expenses, to support business growth and our continued expansion;
- the impact of inflation on labor and other costs, other adverse economic conditions and the impact of public health epidemics or pandemics; 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, the introduction of competing products or services or promotional programs, a change in our mix of products and services, cost of components, supply chain constraints and inflation and other adverse economic conditions. Uncertain macroeconomic conditions have impacted NAND pricing which could result in lower sales prices. Competition continues in the markets in which we participate, and we expect competition to 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 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 26% for fiscal 2023 and our headcount increased from over 3,800 at the end of fiscal 2021 to over 4,200 employees at the end of fiscal 2022, and to over 5,100 employees at the end of fiscal 2023. Our future operating results will depend to a large extent on our ability to successfully sustain our growth and manage our continued 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.

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 *Evergreen//One*, 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 our security measures, or those maintained on our behalf, are compromised now, or in the future, or the security, confidentiality, integrity or availability of our information technology, software, services, networks, products, communications or data is compromised, limited, or fails, our business could experience a material adverse impact, including without limitation, a material interruption to our operations, harm to our reputation, a loss of customers, significant fines, penalties and liabilities, or breach or triggering of data protection laws, privacy policies or other obligations.

In the ordinary course of our business, we collect, store, transmit and otherwise process proprietary, confidential and sensitive data, including by using 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.

Cyberattacks, malicious internet-based activity and online and offline fraud are prevalent and continue to increase. These threats are becoming increasingly difficult to detect. The threats to information systems and information may include: traditional computer “hackers,” social engineering schemes (for example, attempts to induce fraudulent invoice payments or divert money to us), software bugs, malicious code (such as viruses and worms), personnel misconduct or error, faulty password management, theft, denial-of-service attacks (such as credential stuffing), advanced persistent threat intrusions, as well as attacks from nation-state and nation-state supported actors. We may also be the subject of phishing attacks, viruses, malware installation, server malfunction, software or hardware failures, loss of data or other computer assets, adware and other similar issues. Additionally, ransomware attacks, including those from organized criminal threat actors, nation-states and nation-state supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions, delays, or outages in our operations, disruptions in our services, loss of data, loss of income, significant extra expense to restore data or systems, reputational loss and the diversion of funds. To alleviate the financial, operational and reputational impact of a ransomware attack, it may be preferable to make extortion payments, but we may be unwilling or unable to do so (including, for example, if applicable laws or regulations prohibit such payments). Similarly, supply chain attacks have increased in frequency and severity, and we cannot guarantee that third parties and infrastructure in our supply chain have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our platform, systems and network or the systems and networks of third parties that support us and our business.

We devote significant resources to network security, authentication technologies, data encryption and other security measures designed to protect our systems and data, including to secure the transmission and storage of data and prevent third-party access to our data or accounts, but there can be no assurance that our security measures or those of our service providers, partners and other third parties upon whom we rely will be effective in protecting against a security incident or the materially adverse impacts that may arise from a security incident. Any destructive or intrusive breach of our internal systems could result in the information stored on our networks, including, without limitation, source code for our products and services or the networks and systems of third parties upon whom we rely 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 our products, systems and data, or if we were perceived to have such a security incident, 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, including, without limitation, class action litigation, and other possible liabilities. A security incident could also result in government enforcement actions that could include investigations, fines, penalties, audits and inspections, additional reporting requirements and/or oversight, temporary or permanent bans on all or some processing of personal information.

Moreover, applicable data protection laws, contracts, policies and other data protection obligations may require us to notify relevant stakeholders of security incidents, including affected individuals, customers, regulators, and credit reporting agencies. Such disclosures are costly and the disclosures or the failure to comply with such requirements could lead to material adverse impacts such as negative publicity, loss of customer confidence in our services our security measures, investigations and private or government claims. Security incidents that impact our information technology systems could also result in breaches of our contracts (some of which may not have liability limitations and/or require us to indemnify affected parties) and could lead to litigation with customers, partners or other relevant stakeholders. These proceedings could force us to spend money in defense or settlement, divert management’s time and attention, increase our costs of doing business and adversely affect our reputation or otherwise adversely affect our business.

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. Further, we face new challenges regarding workforce planning, employee expectations regarding the ability to work from home or remotely and maintaining employee productivity, as well as higher employee turnover and slower hiring rates. If we are unable to adequately address these challenges, our ability to recruit and retain employees and to ensure employee productivity could be negatively affected. 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, 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 evolving economic and budgetary constraints. 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, including expectations around work location, 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;
- 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, customs and licensing requirements;
- 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, war 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 tax law changes, could expose us to potentially adverse tax consequences.

Changes in federal, state, or international tax laws or tax rulings could adversely affect our effective tax rate and our operating results. Due to expansion of our international business activities, any changes in the U.S. taxation of such activities may increase our worldwide effective tax rate and adversely affect our financial condition and operating results. 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 proposed tax legislation 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.

The Tax Cuts and Jobs Act of 2017 amendments to Internal Revenue Code (IRC) Section 174 require that specific research and experimental expenditures be capitalized and amortized over five years if incurred in the U.S. or fifteen years if incurred in a foreign jurisdiction beginning in our fiscal 2023. Although Congress is considering legislation that would defer, modify or repeal this capitalization and amortization requirement, the possibility that this will happen is uncertain. If this requirement is not deferred, modified or repealed, we may continue to incur additional cash taxes.

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 2,500 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, as well as laws relating to forced labor and conflict minerals. 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, or to timely provide requested documentation, 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.

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 can borrow, 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 be required to expend a significant amount of funds 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.

On October 14, 2022, we provided notice to holders of the Notes, electing to settle all conversion on or after October 15, 2022 by a combination settlement (as defined in the indenture for the Notes) with a specified dollar amount (as defined in the indenture for the Notes) of $1,000 per $1,000 principal amount of Notes. Upon a conversion or repurchase of the Notes, we will be required to make significant cash payments in respect of the Notes being converted or repurchased. We currently intend to settle the principal amount of the Notes in cash.

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.

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, or to make cash payments in connection with any conversion of 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 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. However, for conversions prior to maturity, the capped call transactions would be settled at their fair value, which may be substantially less than the value of the consideration in excess of the principal amount of the Notes delivered upon such conversion.

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 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 $36.00, through March 24, 2023. 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 lingering impact of the 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.

Our Board of Directors has periodically authorized share repurchases, funded from available working capital, including up to $250.0 million authorized in March 2023. 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, profitability and financial condition.

Our operations and performance depend in part on worldwide economic conditions and the economic health of our current and prospective customers. We have experienced global economic uncertainty, inflation, rising interest rates, financial distress caused by recent or potential bank failures and the associated banking crisis, civil unrest and political and fiscal challenges in the United States and abroad and may continue to experience these events in the future, which 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 current banking crisis and interest rate hikes, the Russian invasion of Ukraine and the related sanctions and disruptions, 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, 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.

The majority of our cash and cash equivalents are primarily invested with large financial institutions that we believe are stable and of high quality. Such deposits exceed federally insured limits. If such institutions were to fail, we could lose all or a portion of those amounts held in excess of such insurance limitations. While the FDIC continues to address the situation with SVB and other similarly situated banking institutions, the risk of loss in excess of insurance limitations has generally increased.

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 war, computer viruses or terrorism or by the impact of public health epidemics or pandemics.

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 war, terrorism or malicious computer viruses, and public health epidemics or pandemics, 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 North and South America. 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.”

Holders of Record

As of March 24, 2023, there were 37 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 2023 (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 7, 2022 - December 4, 2022	$ —	—	$ 98,544
December 5, 2022 - January 1, 2023	$ 28.13	1,581	$ 54,066
January 2, 2023 - February 5, 2023	$ 27.33	841	$ 31,088

[1] In March 2022, our Board of Directors authorized additional share repurchases of up to $250.0 million of our outstanding common stock under our share repurchase program. In March 2023, our Board of Directors authorized additional share repurchases of up to $250.0 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 2023 (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 7, 2022 - December 4, 2022	$ 28.36	4	$ 112
December 5, 2022 - January 1, 2023	$ 27.52	122	$ 3,359
January 2, 2023 - February 5, 2023	$ —	—	$ —

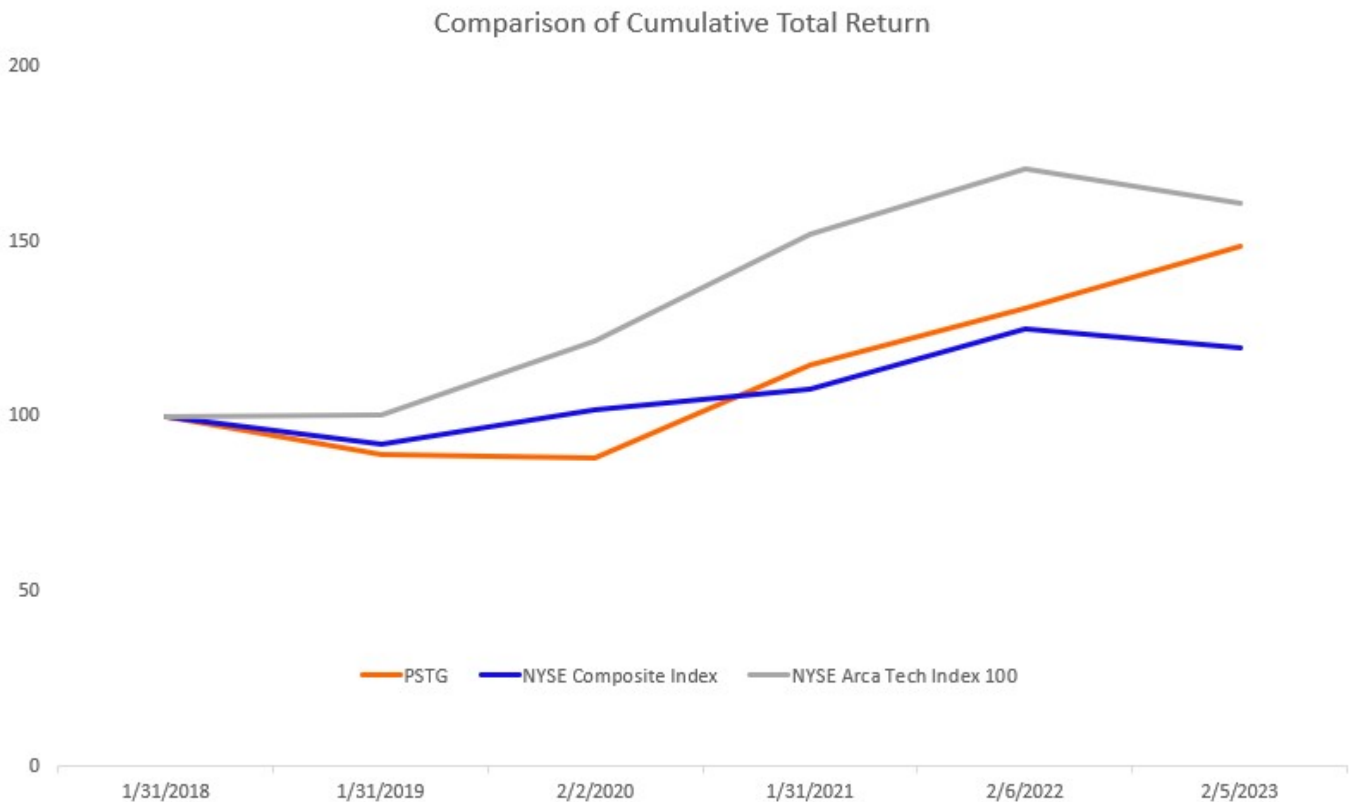
Trading Plans

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 February 5, 2023. The graph assumes that $100 (with reinvestment of all dividends) was invested in our common stock and in each index on January 31, 2018 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. [Reserved]

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' business transformation, and we are focused on delivering innovative and disruptive data storage, products and services that enable customers to maximize the value of their data.

We are a global leader in data storage and management with a mission to redefine the storage experience by simplifying how people consume and interact with data. Our vision integrates our foundation of simplicity and reliability with three major market trends that are impacting all organizations large and small: (1) adoption of the cloud operating model everywhere; (2) the increase of modern cloud-native applications; and (3) the shift to modernizing today's data infrastructure with all-flash.

Our products and subscription services support a wide range of structured and unstructured data, at scale and across any data workloads in hybrid and public cloud environments, and include mission-critical production, test and development, analytics, disaster recovery, and backup and recovery.

Recent Developments

- In May 2022, we released *Pure Fusion* for general availability which enables enterprises and managed service providers (MSPs) to implement a cloud operating model by automating and orchestrating their data storage environment and offer storage services to customers and developers through application programming interfaces (APIs), dramatically accelerating developer workflow.
- In June 2022, we introduced a number of new portfolio and service offerings at our annual user conference, Pure//Accelerate® techfest22:
    - The new *FlashBlade//S* family of products, built with a new modular architecture that shares components with Pure's industry leading *FlashArray*. The highly flexible, all-QLC system combines performance and cost effectiveness to address the demands of unstructured data and modern application growth.
    - Expansion of the *Evergreen* family: To advance our leadership in delivering Storage-as-a-Service (STaaS) while supporting customers wherever they are in their journey to embracing flexible delivery models, we expanded our portfolio of *Evergreen* offerings with the introduction of *Evergreen//Flex.* Our portfolio of Evergreen offerings include:
        - *Evergreen//Forever*: Formerly known as *Evergreen* Gold
        - *Evergreen//Flex*, a fleet-level Evergreen subscription, which gives customers a utilization-based consumption model and flexibility to deploy and shift capacity across their fleet over time
        - *Evergreen//One*: Formerly known as *Pure as-a-Service*
- In March 2023, we announced *FlashBlade//E*, a scale-out unstructured data repository built to handle exponential data growth with industry-leading energy efficiency. *FlashBlade//E* is anticipated to be generally available by the end of April 2023 and will be priced at under $0.20 per gigabyte.

Uncertain Macro Environment

We continue to actively monitor, evaluate and respond to the current uncertain macro environment. We have experienced longer sales cycle and progression for opportunities, most notably with our U.S. enterprise customers.

The macro environment remains unpredictable and our past results may not be indicative of future performance. See "Risk Factors" in Part I, Item 1A for additional details.

Components of Results of Operations

Revenue

We derive revenue primarily from the sale of our storage infrastructure products, *FlashArray and FlashBlade,* and subscription services which include our portfolio of *Evergreen* offerings and *Portworx*. 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. For *Evergreen//Flex*, product revenue is recognized upon the commencement of the underlying subscription services. Products are typically shipped directly by us to customers, and our channel partners generally 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 storage solutions 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 supply chain 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 and product warranty costs, amortization of intangible assets pertaining to developed technology and capitalized internal-use software, 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

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, data center and cloud services costs, third-party engineering and contractor support costs, as well as allocated overhead. We expect our research and development expenses 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 expenses 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, facilities, 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 expenses to increase in absolute dollars and it may decrease as a percentage of revenue as we continue to drive operational excellence.

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. Our foreign subsidiaries earn a profit margin based upon transfer pricing principles which require an arm’s length return. Our foreign subsidiaries' sales and marketing expenses are expected to increase over time as we grow, resulting in higher pre-tax foreign earnings and higher foreign income taxes.

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

Basis of Presentation

We operate using a 52/53 week fiscal year ending on the first Sunday after January 30. Fiscal 2021 and 2023 were both 52-week years that ended on January 31, 2021 and February 5, 2023, respectively. Fiscal 2022 was a 53-week year that ended on February 6, 2022. Unless otherwise stated, all dates refer to our fiscal years.

Year Over Year Comparisons

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	
	2021	2022	$	%	2022	2023	$	%
(in thousands)								
Product revenue	$ 1,144,098	$ 1,442,338	$ 298,240	26 %	$ 1,442,338	$ 1,792,153	$ 349,815	24 %
Subscription services revenue	540,081	738,510	198,429	37 %	738,510	961,281	222,771	30 %
Total revenue	$ 1,684,179	$ 2,180,848	$ 496,669	29 %	$ 2,180,848	$ 2,753,434	$ 572,586	26 %

Total revenue increased in fiscal 2023 by $572.6 million, or 26%, compared to fiscal 2022, driven by demand from enterprise, commercial and public sector customers across our entire product and solutions portfolio and key geographies. The increase in product revenue during fiscal 2023 compared to fiscal 2022 was driven by increased sales from our entire portfolio of *FlashArray* and *FlashBlade* products, including *FlashArray//C*, *FlashArray//XL* and *FlashBlade//S*. The increase in subscription services revenue was largely driven by increases in sales of our *Evergreen* subscription services, including *Evergreen//One*, as well as recognition of revenue from previously contracted *Evergreen* subscription services.

Total revenue increased in fiscal 2022 by $496.7 million, or 29%, compared to fiscal 2021, driven by sales to new and existing enterprise, commercial and public sector customers, with particular strength in the United States, across our entire product and solutions portfolio and key geographies. The increase in product revenue during fiscal 2022 compared to fiscal 2021 was driven by increased sales from our entire portfolio of *FlashArray* and *FlashBlade* solutions, including sales of *FlashArray//C* to a large hyperscaler customer, and repeat sales to existing customers. The increase in subscription services revenue was largely driven by increases in sales of our *Evergreen* subscription services, including *Evergreen//One*, as well as increased *Portworx* revenue.

During fiscal 2023 compared to fiscal 2022, total revenue in the United States grew by 25% from $1.6 billion to $2.0 billion and total rest of the world revenue grew by 30% from $600.8 million to $781.7 million. During fiscal 2022 compared to fiscal 2021, total revenue in the United States grew by 32% from $1.2 billion to $1.6 billion and total rest of the world revenue grew by 23% from $488.8 million to $600.8 million.

Subscription Annual Recurring Revenue (ARR)

We use Subscription ARR as a key business metric to evaluate the performance of our subscription services. Subscription ARR should be viewed independently of revenue, deferred revenue and remaining performance obligations and is not intended as a substitute for any of these items.

Subscription ARR is calculated as the total annualized contract value of all active customer subscription agreements at the end of a fiscal quarter, plus on-demand revenue for the quarter multiplied by four. Contract values are established prior to any adjustments made in accordance with ASC 606.

The following table sets forth our Subscription ARR for the periods presented (dollars in thousands):

	At the End of		Year-over-Year Growth
	Fiscal 2022	Fiscal 2023	%
Subscription annual recurring revenue	$ 848,776	$ 1,101,301	30 %

Deferred Revenue

Deferred revenue primarily consists of amounts that have been invoiced but have not yet been recognized as revenue 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	
	2022	2023
Beginning balance	$ 843,697	$ 1,079,872
Additions	937,510	1,248,417
Recognition of deferred revenue	(701,335)	(942,639)
Ending balance	$ 1,079,872	$ 1,385,650

Revenue recognized during fiscal 2022 and 2023 from deferred revenue at the beginning of each respective period was $442.7 million and $567.8 million.

Remaining Performance Obligations

Total remaining performance obligations (RPO) which is total contracted but not recognized revenue was $1.8 billion at the end of fiscal 2023. RPO consists of both deferred revenue and non-cancelable amounts that are expected to be invoiced and recognized as revenue in future periods. Product orders are generally cancelable until delivery has occurred, and as such unfulfilled product orders are excluded from RPO. Cancelable orders will fluctuate depending on numerous factors. Of the $1.8 billion RPO at the end of fiscal 2023, we expect to recognize approximately 47% over the next 12 months, and the remainder thereafter. RPO is expected to increase as our subscription services business grows over time.

Cost of Revenue and Gross Margin

(in thousands)	Fiscal Year Ended 2021	Fiscal Year Ended 2022	Change $	Change %	Fiscal Year Ended 2022	Fiscal Year Ended 2023	Change $	Change %
Product cost of revenue	$ 348,986	$ 471,565	$ 122,579	35 %	$ 471,565	$ 559,548	$ 87,983	19 %
Product stock-based compensation	4,001	6,334	2,333	58 %	6,334	10,245	3,911	62 %
Total expenses	$ 352,987	$ 477,899	$ 124,912	35 %	$ 477,899	$ 569,793	$ 91,894	19 %
% of Product revenue	31 %	33 %			33 %	32 %		
Subscription services cost of revenue	$ 167,289	$ 209,190	$ 41,901	25 %	$ 209,190	$ 263,365	$ 54,175	26 %
Subscription services stock-based compensation	14,979	21,240	6,261	42 %	21,240	22,630	1,390	7 %
Total expenses	$ 182,268	$ 230,430	$ 48,162	26 %	$ 230,430	$ 285,995	$ 55,565	24 %
% of Subscription services revenue	34 %	31 %			31 %	30 %		
Total cost of revenue	$ 535,255	$ 708,329	$ 173,074	32 %	$ 708,329	$ 855,788	$ 147,459	21 %
% of Revenue	32 %	32 %			32 %	31 %		
Product gross margin	69 %	67 %			67 %	68 %		
Subscription services gross margin	66 %	69 %			69 %	70 %		
Total gross margin	68 %	68 %			68 %	69 %		

Cost of revenue increased by $147.5 million, or 21%, for fiscal 2023 compared to fiscal 2022. The increase in product cost of revenue was primarily attributable to increased sales and, to a lesser extent, higher component and logistics costs due to supply chain environment. The increase in subscription services cost of revenue was primarily attributable to supporting our growing *Evergreen* subscription installed base, including *Evergreen//One*, and *Portworx*.

The slight increase in product gross margin for fiscal 2023 compared to fiscal 2022 was largely as a result of sales of *FlashArray//C* to a large hyperscaler in fiscal 2022 that were at lower product gross margins. Sales of *FlashArray//S* as well as strength in *FlashArray//X* pricing also contributed to higher product gross margins during fiscal 2023, partially offset by higher component costs due to supply chain constraints and warranty reserves. The slight increase in subscription services gross margin for fiscal 2023 compared to fiscal 2022 was driven by increased sales of *Evergreen//One*, higher renewals in *Evergreen* subscriptions, and increasing economies of scale.

Cost of revenue increased by $173.1 million, or 32%, for fiscal 2022 compared to fiscal 2021. The increase in product cost of revenue was primarily attributable to increased sales. Other factors include higher component and logistics costs due to supply chain environment, and an increase in the amortization of acquired intangible assets. The increase in subscription services cost of revenue was primarily attributable to supporting our growing *Evergreen* subscription installed base, including *Evergreen//One*, and *Portworx*.

The decline in product gross margin for fiscal 2022 compared to fiscal 2021 was impacted by the sale of *FlashArray//C* to a large hyperscaler, and to a lesser extent higher component and logistics costs due to supply chain environment, as well as increased sales of *FlashArray//C* and *FlashBlade* products which generally have a modestly lower gross margin compared to our other *FlashArray* products. The increase in subscription services gross margin for fiscal 2022 compared to fiscal 2021 was driven by increased sales of *Evergreen//One* and higher renewals in *Evergreen* subscriptions, and increasing economies of scale.

Operating Expenses

Research and Development

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2021	2022	$	%	2022	2023	$	%
(in thousands)								
Research and development	$363,247	$ 439,671	$ 76,424	21 %	$ 439,671	$ 530,834	$ 91,163	21 %
Stock-based compensation	117,220	142,264	25,044	21 %	142,264	161,694	19,430	14 %
Total expenses	$480,467	$ 581,935	$ 101,468	21 %	$ 581,935	$ 692,528	$110,593	19 %
% of Total revenue	29 %	27 %			27 %	25 %		

Research and development expense increased by $110.6 million, or 19%, during fiscal 2023 compared to fiscal 2022, as we continue to innovate and develop technologies to enhance and expand our solutions portfolio. The increase was primarily driven by a $79.6 million increase in employee compensation and related costs, which included a $19.4 million increase in stock-based compensation expense. The remainder of the increase was primarily attributable to a $20.6 million increase in office and facilities-related costs and an $8.7 million increase in data center and cloud services costs. Research and development expense as a percentage of total revenue decreased in fiscal 2023 compared to fiscal 2022 primarily due to our global expansion of research and development centers.

Research and development expense increased by $101.5 million, or 21%, during fiscal 2022 compared to fiscal 2021, primarily driven by a $71.0 million increase in employee compensation and related costs, which included a $25.0 million increase in stock-based compensation expense. The remainder of the increase was primarily attributable to a $14.2 million increase in data center and cloud services costs and a $9.3 million increase in depreciation expense from property and equipment due, in part, to revising our estimated useful lives of test equipment and certain computer equipment and software during the first quarter of fiscal 2021.

Sales and Marketing

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2021	2022	$	%	2022	2023	$	%
(in thousands)								
Sales and marketing	$ 650,766	$ 727,562	$ 76,796	12 %	$ 727,562	$ 811,102	$ 83,540	11 %
Stock-based compensation	65,248	71,439	6,191	9 %	71,439	72,507	1,068	1 %
Total expenses	$ 716,014	$ 799,001	$ 82,987	12 %	$ 799,001	$ 883,609	$ 84,608	11 %
% of Total revenue	43 %	37 %			37 %	32 %		

Sales and marketing expense increased by $84.6 million, or 11%, during fiscal 2023 compared to fiscal 2022, primarily due to an increase of $51.0 million in employee compensation and related costs and a $34.0 million increase in marketing and travel spend. Sales and marketing expense as a percentage of total revenue decreased in fiscal 2023 compared to fiscal 2022 primarily due to revenue growth and, to a lesser extent, lower sales commissions.

Sales and marketing expense increased by $83.0 million, or 12%, during fiscal 2022 compared to fiscal 2021, primarily due to an increase of $62.7 million in employee compensation and related costs, which included a $24.7 million increase in sales commission expense, and a $14.3 million increase in marketing and travel spend due to the gradual reduction in COVID-19 restrictions.

General and Administrative

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2021	2022	$	%	2022	2023	$	%
(in thousands)								
General and administrative	$ 141,581	$ 144,295	$ 2,714	2 %	$ 144,295	$ 177,455	$ 33,160	23 %
Stock-based compensation	40,896	45,686	4,790	12 %	45,686	60,541	14,855	33 %
Total expenses	$ 182,477	$ 189,981	$ 7,504	4 %	$ 189,981	$ 237,996	$ 48,015	25 %
% of Total revenue	11 %	9 %			9 %	9 %		

General and administrative expense increased by $48.0 million, or 25%, during fiscal 2023 compared to fiscal 2022 primarily due to employee compensation and related costs driven by increased headcount as we continue to scale and support the growth of our business.

General and administrative expense increased by $7.5 million, or 4%, during fiscal 2022 compared to fiscal 2021. The increase was primarily driven by an increase of $16.4 million in employee compensation and related costs driven by increased headcount, partially offset by a $8.5 million decrease in office and facilities-related costs primarily attributable to the exit of certain facilities in fiscal 2021.

Restructuring and Other

During fiscal 2021, we recognized $31.0 million of restructuring and other costs related to one-time involuntary termination benefit costs associated with workforce realignment plans, the cease use of certain lease facilities, and incremental costs directly related to the COVID-19 pandemic.

Other Income (Expense), Net

	Fiscal Year Ended		Change	Fiscal Year Ended		Change
	2021	2022	$	2022	2023	$
(in thousands)						
Other income (expense), net	$ (9,127)	$(30,098)	$ (20,971)	$(30,098)	$ 8,295	$ 38,393
% of Total revenue	(1)%	(1)%		(1)%	— %	

Other income (expense), net increased during fiscal 2023 compared to fiscal 2022 primarily due to decrease in interest expense following the repayment of the outstanding balance on the revolving credit facility and the adoption of ASU 2020-06 in the first quarter of fiscal 2023. The adoption of ASU 2020-06 resulted in the elimination of the debt discount related to the conversion option of our convertible senior notes that was previously accreted to interest expense over its term. These decreases were partially offset by an increase in interest income on cash equivalents and marketable securities resulting from a rising interest rate environment.

We expect interest income to decline in fiscal 2024 year-over-year as a result of cash that will be used to repay our convertible senior notes in April 2023.

Other income (expense), net decreased during fiscal 2022 compared to fiscal 2021 primarily attributable to an increase in net foreign exchange losses as the U.S. dollar strengthened relative to certain foreign currencies, a decrease in interest income on marketable securities resulting from a lower interest rate environment, and higher interest expense due to borrowings under the revolving credit facility.

Provision for Income Taxes

	Fiscal Year Ended		Change		Fiscal Year Ended		Change	
	2021	2022	$	%	2022	2023	$	%
(in thousands)								
Provision for income taxes	$ 11,916	$ 14,763	$ 2,847	24 %	$ 14,763	$ 18,737	$ 3,974	27 %
% of Total revenue	1 %	1 %			1 %	1 %		

Provision for income taxes increased during fiscal 2023 compared to fiscal 2022 primarily due to an increase in U.S. state income taxes arising as a result of research and development capitalization under IRC Section 174.

Provision for income taxes increased during fiscal 2022 compared to fiscal 2021 primarily attributable to an increase in foreign income taxes.

Liquidity and Capital Resources

At the end of fiscal 2023, we had cash, cash equivalents and marketable securities of $1.6 billion. 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, asset-backed securities, and municipal bonds.

We believe our existing cash, cash equivalents, marketable securities and the revolving credit facility will be sufficient to fund our operating and capital needs for at least the next 12 months, including the cash settlement of the principal balance of our convertible senior notes in April 2023 as discussed below. The following table sets forth our non-cancelable contractual obligations and commitments associated with agreements that are enforceable and legally binding at the end of fiscal 2023. Obligations under contracts that we can cancel without a significant penalty are not included.

	Payment Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
			(in thousands)		
Debt obligations (1)	$ 580,091	$ 577,363	$ 2,728	$ —	$ —
Future lease commitments (2)	238,297	51,059	93,570	44,991	48,677
Purchase obligations (3)	445,048	317,846	98,100	29,102	—
Total	$ 1,263,436	$ 946,268	$ 194,398	$ 74,093	$ 48,677

(1) Consists of (i) principal and interest payments on our convertible senior notes due April 2023, (ii) unused commitment fees on our August 2020 revolving credit facility based on rates in effect on February 5, 2023, and (iii) principal and interest on a five year loan.
(2) Represents aggregate future minimum lease payments under non-cancelable operating and finance leases.
(3) Includes primarily non-cancelable inventory purchase commitments, software service contracts, and hosting arrangements. Purchase orders are not included as they represent authorizations to purchase rather than binding agreements.

Our future capital requirements will depend on many factors including our sales growth, the timing and extent of capital spending to support development efforts, growth of our Evergreen//One offering, the addition or closure of office space, construction of our new headquarters facility, the timing of new product introductions, and our share repurchases. We may continue to enter into arrangements to acquire or invest in complementary businesses, services and technologies, including intellectual property rights. We may seek additional equity or debt financing in the future.

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 will mature on April 15, 2023. 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. On October 14, 2022, we provided notice to the holders of the Notes electing to settle all conversions of the Notes with cash up to the principal amount of the Notes and shares for any excess conversion value. Accordingly, we currently intend to settle the principal amount of the Notes, or $575.0 million, with cash from a combination of sources, including our existing cash, cash equivalents, marketable securities and the revolving credit facility.

In connection with the offering of the Notes, we entered into capped call transactions with certain financial institutions that provide us with the option to purchase up to a total of 21,884,155 shares of our common stock to offset the dilution and/or any cash payments we are required to make in excess of the principal amount of the Notes upon conversion of the Notes at maturity with such offset subject to a cap of $39.66 per share. See further discussion about our Notes in Note 7 in Part II, Item 8 of this report.

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. During March 2021, the ICE Benchmark Administration, the administrator of LIBOR, announced that it will cease publication of LIBOR by June 2023. In March 2023, we amended the Credit Facility to transition LIBOR to the Secured Overnight Financing Rate (SOFR) effective April 1, 2023. The annual interest rate for SOFR borrowings will be equal to term SOFR (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%. We do not anticipate that this transition to SOFR will materially impact our liquidity or financial position.

In February 2022, we repaid, in full, the $250.0 million then outstanding under the Credit Facility. 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: 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 2023.

Letters of Credit

At the end of fiscal 2022 and 2023, we had outstanding letters of credit in the aggregate amount of $6.7 million and $8.0 million in connection with our facility leases. The letters of credit are collateralized by either restricted cash or the Credit Facility and mature on various dates through September 2030.

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 and in February 2021, an additional $200.0 million of our common stock, both of which were completed by the end of fiscal 2022. In March 2022, our Board of Directors authorized the repurchase of up to an additional $250.0 million of our common stock, of which $31.1 million remaining as of the end of fiscal 2023. In March 2023, our Board of Directors authorized the repurchase of up to an additional $250.0 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 2021, we repurchased and retired 9.5 million shares of common stock at an average purchase price of $14.17 per share for an aggregate repurchase price of $135.0 million. During fiscal 2022, we repurchased and retired 8.5 million shares of common stock at an average purchase price of $23.56 per share for an aggregate repurchase price of $200.0 million. During fiscal 2023, we repurchased and retired 7.8 million shares of common stock at an average purchase price of $27.95 per share for an aggregate repurchase price of $218.9 million. Since the end of fiscal 2023, we have repurchased $31.1 million of additional shares.

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

	Fiscal Year Ended		
	2021	2022	2023
Net cash provided by operating activities	$ 187,641	$ 410,127	$ 767,234
Net cash used in investing activities	(418,109)	(153,283)	(221,413)
Net cash provided by (used in) financing activities	200,237	(127,792)	(431,166)

Operating Activities

Net cash provided by operating activities substantially increased year-over-year during both fiscal 2022 and 2023. Key factors driving the increase included cash collections from sales of our product and subscription services and improved operating leverage, partially offset by payments to our contract manufacturers, employee compensation, and general corporate operating expenditures.

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.

Investing Activities

Net cash used in investing activities during fiscal 2023 of $221.4 million was driven by capital expenditures of $158.1 million, and net purchases of marketable securities of $61.3 million.

Net cash used in investing activities during fiscal 2022 of $153.3 million was driven by capital expenditures of $102.3 million, and net purchases of marketable securities of $50.4 million.

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.

Financing Activities

Net cash used in financing activities of $431.2 million during fiscal 2023 was primarily driven by our repayment of the $250.0 million outstanding under the Credit Facility, share repurchases of $219.1 million, and $19.6 million in tax withholdings on vesting of equity awards, partially offset by $40.0 million of proceeds from issuance of common stock under our employee stock purchase plan (ESPP), and $24.8 million of proceeds from the exercise of stock options.

Net cash used in financing activities of $127.8 million during fiscal 2022 was primarily driven by share repurchases of $200.2 million, and $10.8 million in tax withholdings on vesting of equity awards, partially offset by $48.7 million of proceeds from the exercise of stock options, and $36.6 million of proceeds from issuance of common stock under our ESPP.

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 Credit Facility, $59.3 million of proceeds from the exercise of stock options, and $32.4 million of proceeds from issuance of common stock under our ESPP, partially offset by share repurchases of $135.2 million and $8.3 million in tax withholdings on vesting of equity awards.

Off-Balance Sheet Arrangements

Through the end of fiscal 2023, 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 Policy 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, judgments, and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. A summary of significant accounting policies applicable to our consolidated financial statements is included in Note 2 of our Notes to Consolidated Financial Statements in Part II, Item 8. We deem an accounting policy to be critical if the nature of the estimate or assumption it incorporates is subject to material level of judgment related to matters that are highly uncertain and changes in those estimates and assumptions are reasonably likely to materially impact our consolidated financial statements.

We evaluate our estimates and assumptions on an ongoing basis. Our estimates and judgments are based on historical experience, forecasted events and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

We believe the accounting policy below has the most significant impact on our consolidated financial statements and require management's most difficult, subjective, or complex judgments.

Revenue Recognition

Our revenue is derived from sales of our integrated storage hardware and embedded licensed software products and subscription services which also includes support and maintenance and professional services. We enter into contracts with customers that may include combinations of these products and subscription services, resulting in arrangements containing multiple promised performance obligations.

Determining whether our products and subscription services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. For these contracts, we account for individual performance obligations separately if they are distinct.

Revenue is recognized when, or as, control of the promised products or subscription services is transferred to the customer at the transaction price. 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. Transaction price may be adjusted for variable consideration which we estimate by applying the expected value or most likely estimate and subsequently update at each reporting period as additional information become available.

To recognize revenue for the products and subscription services for which control has been transferred, we allocate the transaction price for the contract among the identified performance obligations on a relative standalone selling price (SSP) basis. We establish SSP for most of our products and subscription services based on the observable price of the products or subscription services when sold separately in similar circumstances to similar customers. When the SSP is not directly observable through historical transactions, we estimate SSP based on management judgment by considering available data, such as internal margin objectives, pricing strategies, approved pricing guidelines, market/competitive conditions, historical profitability data, as well as other observable inputs. We establish SSP ranges for our products and subscription services and reassess them periodically.

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 2022 and 2023, we had cash, cash equivalents and marketable securities of $1.4 billion and $1.6 billion. 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 $8.5 million as of the end of fiscal 2023.

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, Euro and Yen. 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 2023 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 $9.0 million at the end of fiscal 2023.

Item 8. Financial Statements and Supplementary Data.

PURE STORAGE, INC.

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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 6, 2022 and February 5, 2023, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows, for each of the three years in the period ended February 5, 2023, February 6, 2022, and 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 6, 2022 and February 5, 2023, and the results of its operations and its cash flows for each of the three years in the period ended February 5, 2023, February 6, 2022, and 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 February 5, 2023, 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 31, 2023 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.

Revenue Recognition—Determination of Standalone Selling Prices — Refer to Note 2 of the Financial Statements.

Critical Audit Matter Description

The Company generates revenue from product revenue and subscription services revenue. For contracts that contain multiple performance obligations, the Company allocates 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. The determination of the standalone selling price requires management to make significant estimates and judgments related to market conditions and pricing guidelines.

We identified the determination of standalone selling price as a critical audit matter because of the significant judgments made by management in estimating standalone selling price when the price at which the performance obligation sold separately is not available. This required a high degree of auditor judgment and an increased extent of effort to perform qualitative evaluations of the audit evidence related to management’s determination of the standalone selling price.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to standalone selling price included the following, among others:

- We tested the effectiveness of controls over the Company's methodology and determination of standalone selling price.
- We evaluated the appropriateness of the Company's methodology used to determine standalone selling price by comparing to historical analysis completed by the Company and practices observed in the industry.
- We tested the underlying data that served as the basis for the Company's analysis and the mathematical accuracy of such analysis and verified the consistent application of the methodology of establishing standalone selling price.
- We evaluated the reasonableness of the Company's overall conclusion of standalone selling price.
- We tested the allocation of the transaction price among performance obligations based on relative standalone selling price.

/s/ Deloitte & Touche LLP

San Jose, California
March 31, 2023

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 February 5, 2023, 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 February 5, 2023, 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 February 5, 2023, of the Company and our report dated March 31, 2023, 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 31, 2023

PURE STORAGE, INC.

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

	At the End of Fiscal	
	2022	**2023**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 466,199	$ 580,854
Marketable securities	947,073	1,001,352
Accounts receivable, net of allowance of $945 and $1,057	542,144	612,491
Inventory	38,942	50,152
Deferred commissions, current	81,589	68,617
Prepaid expenses and other current assets	116,232	161,391
Total current assets	2,192,179	2,474,857
Property and equipment, net	195,282	272,445
Operating lease right-of-use assets	111,763	158,912
Deferred commissions, non-current	164,718	177,239
Intangible assets, net	62,646	49,222
Goodwill	358,736	361,427
Restricted cash	10,544	10,544
Other assets, non-current	39,447	38,814
Total assets	$ 3,135,315	$ 3,543,460
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 70,704	$ 67,121
Accrued compensation and benefits	205,431	232,636
Accrued expenses and other liabilities	78,511	123,749
Operating lease liabilities, current	35,098	33,707
Deferred revenue, current	562,576	718,149
Debt, current	—	574,506
Total current liabilities	952,320	1,749,868
Long-term debt	786,779	—
Operating lease liabilities, non-current	93,479	142,473
Deferred revenue, non-current	517,296	667,501
Other liabilities, non-current	31,105	42,385
Total liabilities	2,380,979	2,602,227
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; 292,633 and 304,076 Class A shares issued and outstanding	29	30
Additional paid-in capital	2,470,943	2,493,769
Accumulated other comprehensive loss	(8,365)	(15,504)
Accumulated deficit	(1,708,271)	(1,537,062)
Total stockholders' equity	754,336	941,233
Total liabilities and stockholders' equity	$ 3,135,315	$ 3,543,460

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		
	2021	2022	2023
Revenue:			
Product	$ 1,144,098	$ 1,442,338	$ 1,792,153
Subscription services	540,081	738,510	961,281
Total revenue	1,684,179	2,180,848	2,753,434
Cost of revenue:			
Product	352,987	477,899	569,793
Subscription services	182,268	230,430	285,995
Total cost of revenue	535,255	708,329	855,788
Gross profit	1,148,924	1,472,519	1,897,646
Operating expenses:			
Research and development	480,467	581,935	692,528
Sales and marketing	716,014	799,001	883,609
General and administrative	182,477	189,981	237,996
Restructuring and other	30,999	—	—
Total operating expenses	1,409,957	1,570,917	1,814,133
Income (loss) from operations	(261,033)	(98,398)	83,513
Other income (expense), net	(9,127)	(30,098)	8,295
Income (loss) before provision for income taxes	(270,160)	(128,496)	91,808
Provision for income taxes	11,916	14,763	18,737
Net income (loss)	$ (282,076)	$ (143,259)	$ 73,071
Net income (loss) per share attributable to common stockholders, basic	$ (1.05)	$ (0.50)	$ 0.24
Net income (loss) per share attributable to common stockholders, diluted	$ (1.05)	$ (0.50)	$ 0.23
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, basic	267,824	285,882	299,478
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, diluted	267,824	285,882	339,184

See the accompanying notes to the consolidated financial statements.

PURE STORAGE, INC.

Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Fiscal Year Ended		
	2021	**2022**	**2023**
Net income (loss)	$ (282,076)	$ (143,259)	$ 73,071
Other comprehensive income (loss), net of tax:			
Unrealized net gains (losses) on available-for-sale securities	3,213	(15,107)	(7,108)
Reclassification adjustment for net gains on available-for-sale securities included in net income (loss)	(1,252)	(668)	(31)
Change in unrealized net gains (losses) on available-for-sale securities	1,961	(15,775)	(7,139)
Comprehensive income (loss)	$ (280,115)	$ (159,034)	$ 65,932

See the accompanying notes to consolidated financial statements.

PURE STORAGE, INC.

Consolidated Statements of Stockholders' Equity
(in thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
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
Issuance of common stock upon exercise of stock options	5,955	—	48,543	—	—	48,543
Stock-based compensation expense	—	—	289,185	—	—	289,185
Vesting of restricted stock units	12,955	1	(1)	—	—	—
Cancellation and forfeiture of restricted stock	(62)	—	—	—	—	—
Tax withholding on vesting of equity awards	(454)	—	(10,835)	—	—	(10,835)
Common stock issued under employee stock purchase plan	4,365	—	36,641	—	—	36,641
Repurchases of common stock	(8,489)	—	(200,170)	—	—	(200,170)
Other comprehensive loss	—	—	—	(15,775)	—	(15,775)
Net loss	—	—	—	—	(143,259)	(143,259)
Balance at the end of fiscal 2022	292,633	$ 29	$ 2,470,943	$ (8,365)	$ (1,708,271)	$ 754,336
Cumulative-effect adjustment from adoption of ASU 2020-06	—	—	(133,265)	—	98,138	(35,127)
Issuance of common stock upon exercise of stock options	2,988	—	25,073	—	—	25,073
Stock-based compensation expense	—	—	329,723	—	—	329,723
Vesting of restricted stock units	13,916	1	(1)	—	—	—
Tax withholding on vesting of equity awards	(643)	—	(19,601)	—	—	(19,601)
Common stock issued under employee stock purchase plan	3,014	—	39,965	—	—	39,966
Repurchases of common stock	(7,832)	—	(219,068)	—	—	(219,069)
Other comprehensive loss	—	—	—	(7,139)	—	(7,139)
Net income	—	—	—	—	73,071	73,071
Balance at the end of fiscal 2023	304,076	$ 30	$ 2,493,769	$ (15,504)	$ (1,537,062)	$ 941,233

See the accompanying notes to the consolidated financial statements.

PURE STORAGE, INC.

Consolidated Statements of Cash Flows
(in thousands)

	Fiscal Year Ended		
	2021	2022	2023
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income (loss)	$ (282,076)	$ (143,259)	$ 73,071
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	70,042	83,151	100,432
Amortization of debt discount and debt issuance costs	29,070	31,577	3,210
Stock-based compensation expense	242,344	286,963	327,617
Impairment of long-lived assets	7,505	471	—
Other	7,340	13,075	4,145
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accounts receivable, net	410	(81,247)	(70,724)
Inventory	(8,690)	4,118	(10,619)
Deferred commissions	(48,721)	(58,383)	451
Prepaid expenses and other assets	(33,982)	(25,788)	(31,580)
Operating lease right-of-use assets	28,804	29,952	33,813
Accounts payable	(14,364)	6,711	(7,075)
Accrued compensation and other liabilities	76,972	58,961	72,084
Operating lease liabilities	(27,318)	(32,351)	(33,359)
Deferred revenue	140,305	236,176	305,768
Net cash provided by operating activities	187,641	410,127	767,234
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of property and equipment	(94,975)	(102,287)	(158,139)
Acquisitions, net of cash acquired	(339,641)	—	(1,989)
Purchases of marketable securities	(573,959)	(617,043)	(501,435)
Sales of marketable securities	171,530	200,482	6,155
Maturities of marketable securities	423,936	366,165	433,995
Other	(5,000)	(600)	—
Net cash used in investing activities	(418,109)	(153,283)	(221,413)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net proceeds from exercise of stock options	59,339	48,709	24,778
Proceeds from issuance of common stock under employee stock purchase plan	32,439	36,641	39,965
Proceeds from borrowings, net of issuance costs	251,892	—	—
Principal payments on borrowings and finance lease obligations	—	(2,137)	(257,240)
Tax withholding on vesting of equity awards	(8,258)	(10,835)	(19,601)
Repurchases of common stock	(135,175)	(200,170)	(219,068)
Net cash provided by (used in) financing activities	200,237	(127,792)	(431,166)
Net increase (decrease) in cash, cash equivalents and restricted cash	(30,231)	129,052	114,655
Cash, cash equivalents and restricted cash, beginning of year	377,922	347,691	476,743
Cash, cash equivalents and restricted cash, end of year	$ 347,691	$ 476,743	$ 591,398
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF YEAR			
Cash and cash equivalents	$ 337,147	$ 466,199	$ 580,854
Restricted cash	$ 10,544	$ 10,544	$ 10,544
Cash, cash equivalents and restricted cash, end of year	$ 347,691	$ 476,743	$ 591,398
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Cash paid for interest	$ 2,279	$ 5,019	$ 1,185
Cash paid for income taxes	$ 10,522	$ 12,662	$ 14,391
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING INFORMATION			
Property and equipment purchased but not yet paid	$ 10,979	$ 7,441	$ 14,902
Fair value of equity awards assumed in an acquisition	$ 8,802	$ —	$ —

See the accompanying notes to the consolidated financial statements.

PURE STORAGE, INC.

Notes to 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.

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

Basis of Presentation and Principles of Consolidation

We operate using a 52/53 week fiscal year ending on the first Sunday after January 30. Fiscal 2021 and 2023 were both 52-week years that ended on January 31, 2021 and February 5, 2023, respectively. Fiscal 2022 was a 53-week year that ended on February 6, 2022. Unless otherwise stated, all dates refer to our fiscal years.

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.

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. Such estimates include, but are not limited to, the determination of standalone selling price for revenue arrangements with multiple performance obligations when the price at which the performance obligation sold separately or observable past transactions are not available, 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 2022 and 2023, the majority of our cash and cash equivalents are primarily invested with two global financial institutions and our deposits exceed federally insured limits. These two global financial institutions were identified by the Financial Stability Board in 2022 as being global systemically important banks and are allocated to buckets 2 or higher. Our investments are intended to facilitate liquidity and capital preservation and consist predominantly of highly-rated fixed income securities. Our investment policy also requires diversification of investment type and credit exposures, and includes certain limits on portfolio duration. Management believes that the financial institutions that hold our cash, cash equivalents and marketable securities 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. A substantial amount of our revenue and accounts receivable are derived from the United States across a multitude of industries. We perform ongoing evaluations to determine partner and customer credit.

One channel partner represented 10 percent or more of total accounts receivable at the end of fiscal 2022. No customer or channel partner represented 10 percent or more of total accounts receivable at the end of fiscal 2023 or more than 10 percent of revenue for fiscal 2021, 2022 or 2023.

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 and U.S. government treasury notes, 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 partners and 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 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		
	2021	2022	2023
	(in thousands)		
Allowance for doubtful accounts, beginning balance	$ 542	$ 1,033	$ 945
Provision, net of cash received	496	(18)	377
Write-offs	(5)	(70)	(265)
Allowance for doubtful accounts, ending balance	$ 1,033	$ 945	$ 1,057

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 2022 and 2023, we had restricted cash of $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. Inventory write-offs were insignificant for fiscal 2021, 2022 and 2023.

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 to 5 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.

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 value.

Convertible Senior Notes

Prior to the adoption of Accounting Standards Update (ASU) 2020-06 on February 7, 2022, 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 debt instrument 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. This difference represented a debt discount that was amortized to interest expense using the effective interest method over the term of the Notes. The equity component of the Notes was included in additional paid-in capital in the consolidated balance sheets and was not remeasured as it continued to meet the conditions for equity classification. Transaction costs related to the issuance of the Notes (debt issuance costs) were allocated to the liability and equity components using the same proportions as the initial carrying value of the Notes. The debt issuance costs attributable to the liability component were netted with the principal amount of the Notes and amortized to interest expense using the effective interest method over the term of the Notes. The debt issuance costs attributable to the equity component were netted with the equity component of the Notes in additional paid-in capital.

Upon adoption of ASU 2020-06, we combined the liability and equity components assuming that the instrument was accounted for as a single liability from inception to the date of adoption, resulting in the elimination of the debt discount. Similarly, the liability and equity components of the debt issuance costs were combined as a reduction to the Notes and is being amortized to interest expense using the effective interest method over the remaining term of the Notes.

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.

Leases

We determine if an arrangement contains a lease at inception and classify leases as an operating or finance lease at commencement date. Lease liabilities are recognized at the present value of the future lease payments at commencement date. The interest rate implicit in our operating and finance 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 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 and finance 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 under our operating leases is recognized on a straight-line basis over the lease term commencing on the date we have the right to use the leased property. For finance leases, we recognize amortization expense of the finance lease ROU asset on a straight-line basis over the shorter of its useful life or lease term and record interest expense for finance lease liabilities based on the incremental borrowing rate. 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. Assets recognized and the short and long-term lease liabilities from finance leases are included in property and equipment, net, accrued expenses and other liabilities and other liabilities, non-current in the consolidated balance sheets.

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 (defined as leases that, at the commencement date, have a lease term of twelve months or less, 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 the sale of integrated storage hardware and embedded licensed operating system software and (2) subscription services revenue which includes our portfolio of *Evergreen* offerings and *Portworx*. Subscription services revenue also include our professional services offerings such as installation and implementation consulting services.

We typically recognize product revenue upon transfer of control to our customers and the satisfaction of our performance obligations. For *Evergreen//Flex*, product revenue is recognized upon the commencement of the underlying subscription services. 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* 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* 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* subscription service agreement and the allocated revenue is recognized upon shipment of the controller.

Our *Evergreen* 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 (SSP). The SSP 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* 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* subscription agreements. We will establish a warranty reserve for specifically identified products if and when we determine we have systemic product failure. Our estimate for future estimated costs related to warranty activities is based upon historical product failure rates and historical costs incurred in correcting product failures. Warranty reserve at the end of fiscal 2023 was $7.4 million.

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, data center and cloud services 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 development costs capitalized to property and equipment were $7.8 million and $7.3 million for fiscal 2022 and 2023. Amortization expense for software development costs was none during fiscal 2021 and 2022 and $2.2 million during fiscal 2023.

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. Software implementation costs capitalized were $3.5 million and $9.3 million for fiscal 2022 and 2023. Amortization expense for software implementation costs was $0.1 million, $0.5 million and $1.5 million during fiscal 2021, 2022 and 2023.

Advertising Expenses

Advertising costs are expensed as incurred. Advertising expenses were $8.1 million, $15.3 million and $11.1 million for fiscal 2021, 2022 and 2023.

Stock-Based Compensation

Stock-based compensation includes expenses related to restricted stock units (RSUs), performance restricted stock units (PRSUs), restricted stock, stock options and purchase rights issued to employees under our employee stock purchase plan (ESPP). RSUs, PRSUs 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 with only service conditions 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.

Recently Adopted Accounting Pronouncement

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 requires the use of the if-converted method to calculate the impact of convertible instruments on diluted earnings per share (EPS) which results in the inclusion of the effect of share settlement for instruments that may be settled in cash or shares. We adopted this standard as of February 7, 2022 using the modified retrospective basis, under which financial results reported in prior periods were not adjusted. Adoption resulted in an adjustment of $133.3 million to reclassify the remaining balance of the conversion feature recorded in additional paid-in capital to the Notes of $35.2 million and accumulated deficit of $98.1 million on the consolidated balance sheet. Accordingly, we no longer carry an equity component of the Notes. For further information, see Note 7, Debt, and Note 13, Net Income (Loss) per Share Attributable to Common Stockholders.

Recent Accounting Pronouncements

There are no recently issued accounting pronouncements that are expected to have material impact on our consolidated financial statements and accompanying disclosures.

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 2022 and 2023 (in thousands):

	At the End of Fiscal 2022						
	Amortized Cost	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**	**Cash Equivalents**	**Marketable Securities**	**Restricted Cash**
Level 1							
Money market accounts	$ —	$ —	$ —	$ 29,275	$ 18,731	$ —	$ 10,544
Level 2							
U.S. government treasury notes	336,303	512	(2,176)	334,639	—	334,639	—
U.S. government agencies	49,153	49	(193)	49,009	—	49,009	—
Corporate debt securities	491,728	384	(4,731)	487,381	200	487,181	—
Foreign government bonds	12,333	37	(17)	12,353	—	12,353	—
Asset-backed securities	60,361	111	(453)	60,019	—	60,019	—
Municipal bonds	3,950	—	(78)	3,872	—	3,872	—
Total	$ 953,828	$ 1,093	$ (7,648)	$ 976,548	$ 18,931	$ 947,073	$ 10,544

	At the End of Fiscal 2023						
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash Equivalents	Marketable Securities	Restricted Cash
Level 1							
Money market accounts	$ —	$ —	$ —	$ 49,733	$ 39,189	$ —	$ 10,544
Level 2							
U.S. government treasury notes	425,977	170	(4,229)	421,918	32,008	389,910	—
U.S. government agencies	23,795	—	(289)	23,506	—	23,506	—
Corporate debt securities	527,164	901	(9,300)	518,765	—	518,765	—
Foreign government bonds	4,797	—	(44)	4,753	—	4,753	—
Asset-backed securities	61,371	281	(1,016)	60,636	—	60,636	—
Municipal bonds	3,950	—	(168)	3,782	—	3,782	—
Total	$1,047,054	$ 1,352	$ (15,046)	$1,083,093	$ 71,197	$1,001,352	$ 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 2023	
	Amortized Cost	Fair Value
Due within one year	$ 542,675	$ 537,272
Due in one to five years	468,427	460,091
Due in five to ten years	3,944	3,989
Total	$ 1,015,046	$ 1,001,352

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 the rising interest rate environment driven by current market conditions that has resulted in higher credit spreads. 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 were no credit or non-credit impairment charges recorded in fiscal 2021, 2022, and 2023. 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 2022 and 2023, aggregated by investment category (in thousands):

	At the End of Fiscal 2022					
	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	$ 193,359	$ (2,176)	$ —	$ —	$ 193,359	$ (2,176)
U.S. government agencies	24,388	(193)	—	—	24,388	(193)
Corporate debt securities	374,223	(4,708)	1,182	(23)	375,405	(4,731)
Foreign government bonds	4,098	(17)	—	—	4,098	(17)
Asset-backed securities	37,608	(453)	—	—	37,608	(453)
Municipal bonds	3,872	(78)	—	—	3,872	(78)
Total	$ 637,548	$ (7,625)	$ 1,182	$ (23)	$ 638,730	$ (7,648)

	At the End of Fiscal 2023					
	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	$ 250,046	$ (130)	$ 127,976	$ (4,099)	$ 378,022	$ (4,229)
U.S. government agencies	5,194	(5)	18,312	(284)	23,506	(289)
Corporate debt securities	99,446	(330)	277,717	(8,970)	377,163	(9,300)
Foreign government bonds	3,200	(5)	551	(39)	3,751	(44)
Asset-backed securities	3,060	(25)	22,221	(991)	25,281	(1,016)
Municipal bonds	—	—	3,782	(168)	3,782	(168)
Total	$ 360,946	$ (495)	$ 450,559	$ (14,551)	$ 811,505	$ (15,046)

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 2022 and 2023 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 2022 and 2023.

Note 4. Business Combination

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 applications. 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 1.9 million 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 2.0 million RSUs outstanding 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 was 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 was 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 were 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 remaining unpaid amount was $4.9 million at the end of fiscal 2023.

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 was 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	
	2022	2023
Raw materials	$ 15,734	$ 24,896
Finished goods	23,208	25,256
Inventory	$ 38,942	$ 50,152

Property and Equipment, Net

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

	At the End of Fiscal	
	2022	2023
Test equipment	$ 266,672	$ 315,290
Computer equipment and software	206,053	262,574
Furniture and fixtures	8,652	9,693
Leasehold improvements	47,443	71,235
Capitalized software development costs	8,528	15,806
Total property and equipment	537,348	674,598
Less: accumulated depreciation and amortization	(342,066)	(402,153)
Property and equipment, net	$ 195,282	$ 272,445

Depreciation and amortization expense related to property and equipment was $57.1 million, $65.9 million and $87.0 million for fiscal 2021, 2022 and 2023, respectively.

Intangible Assets, Net

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

	At the End of Fiscal					
	2022			2023		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount
Technology patents	$ 19,125	$ (13,544)	$ 5,581	$ 19,125	$ (14,826)	$ 4,299
Developed technology	80,166	(30,304)	49,862	83,211	(43,366)	39,845
Customer relationships	6,459	(1,246)	5,213	6,459	(2,166)	4,293
Trade name	3,623	(1,633)	1,990	3,623	(2,838)	785
Intangible assets, net	$ 109,373	$ (46,727)	$ 62,646	$ 112,418	$ (63,196)	$ 49,222

Intangible assets amortization expense was $13.0 million, $16.8 million and $16.5 million for fiscal 2021, 2022 and 2023, respectively. At the end of fiscal 2023, the weighted-average remaining amortization period was 1.6 years for technology patents, 3.0 years for developed technology, 4.7 years for customer relationships, and 0.6 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 2023, future expected amortization expense for intangible assets is as follows (in thousands):

Fiscal Years Ending	Future Expected Amortization Expense
2024	$ 16,210
2025	15,425
2026	12,830
2027	3,107
2028	1,054
Thereafter	596
Total	$ 49,222

Goodwill

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

	Amount
Balance as of the end of fiscal 2022	$ 358,736
Goodwill acquired	2,691
Balance as of the end of fiscal 2023	$ 361,427

There were no impairments to goodwill during fiscal 2022 and 2023.

Accrued Expenses and Other Liabilities

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

	At the End of Fiscal	
	2022	2023
Taxes payable	$ 6,312	$ 16,615
Accrued marketing	13,257	14,228
Accrued cloud and outside services	6,135	7,644
Supply chain-related accruals [(1)]	6,991	23,545
Accrued service logistics and professional services	6,244	7,927
Acquisition earn-out and deferred consideration	5,211	3,556
Finance lease liabilities, current	1,035	5,432
Customer deposits from contracts with customers	10,409	17,824
Other accrued liabilities	22,917	26,978
Total accrued expenses and other liabilities	$ 78,511	$ 123,749

(1) Primarily consist of warranty reserves and accruals related to our inventory and inventory purchase commitments with our contract manufacturers.

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	
	2022	2023
Beginning balance	$ 187,924	$ 246,307
Additions	217,595	155,414
Recognition of deferred commissions	(159,212)	(155,865)
Ending balance	$ 246,307	$ 245,856

During fiscal 2021, 2022 and 2023, we recognized sales commission expenses of $150.2 million, $175.9 million, and $170.0 million, respectively. Of the $245.9 million total deferred commissions balance at the end of fiscal 2023, we expect to recognize approximately 28% as sales commission expense over the next 12 months and the remainder thereafter.

There was no impairment related to capitalized commissions for fiscal 2021, 2022 or 2023.

Deferred Revenue

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

	Fiscal Year Ended	
	2022	2023
Beginning balance	$ 843,697	$ 1,079,872
Additions	937,510	1,248,417
Recognition of deferred revenue	(701,335)	(942,639)
Ending balance	$ 1,079,872	$ 1,385,650

During fiscal 2022 and 2023, we recognized approximately $442.7 million and $567.8 million, respectively, in revenue pertaining to deferred revenue as of the beginning of each period.

Remaining Performance Obligations

Total remaining performance obligations (RPO) which is contracted but not recognized revenue was $1.8 billion at the end of fiscal 2023. RPO consists of both deferred revenue and non-cancelable amounts that are expected to be invoiced and recognized as revenue in future periods. Product orders are generally cancelable until delivery has occurred, and as such unfulfilled product orders are excluded from RPO. Of the $1.8 billion RPO at the end of fiscal 2023, we expect to recognize approximately 47% 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 will mature on April 15, 2023. 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. On October 14, 2022, we provided notice to the holders electing to settle all conversions on or after October 15, 2022 with cash up to the principal amount of the Notes and shares for any excess conversion value.

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.

The Notes consisted of the following (in thousands):

	At the End of Fiscal	
	2022	2023
Liability:		
Principal	$ 575,000	$ 575,000
Less: debt discount, net of amortization [1]	(35,641)	—
Less: debt issuance costs, net of amortization [1]	(2,580)	(494)
Net carrying amount of the Notes	$ 536,779	$ 574,506
Stockholders' equity recorded at issuance:		
Allocated value of the conversion feature [1]	$ 136,333	$ —
Less: debt issuance costs [1]	(3,068)	—
Additional paid-in capital	$ 133,265	$ —

[1] Fiscal 2023 reflects the adoption of ASU 2020-06 on February 7, 2022 using the modified retrospective method as described in Note 2.

The total estimated fair values of the Notes at the end of fiscal 2022 and 2023 were $681.8 million and $660.0 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 2022 and 2023. 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 $29.91 on the last day of fiscal 2023, the if-converted value of the Notes of $654.6 million was greater than its principal amount. At the end of fiscal 2023, the remaining term of the Notes is approximately two months.

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

	Fiscal Year Ended	
	2022	2023
Amortization of debt discount [1]	$ 28,874	$ —
Amortization of debt issuance costs [1]	2,091	2,598
Total amortization of debt discount and debt issuance costs	30,965	2,598
Contractual interest expense	732	716
Total interest expense related to the Notes	$ 31,697	$ 3,314
Effective interest rate of the liability component	5.6 %	0.6 %

[1] Fiscal 2023 reflects the adoption of ASU 2020-06 on February 7, 2022 using the modified retrospective method as described in Note 2.

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 up to a total of 21,884,155 shares of our common stock to offset the dilution and/or any cash payments we are required to make in excess of the principal amount upon conversion of the Notes at maturity, with such offset subject to a cap of $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). However, for conversions prior to maturity, the Capped Calls would be settled at their fair value, which may not completely offset, and may be substantially less than, the value of the consideration in excess of the principal amount of the Notes delivered upon such conversion. The cost of the Capped Calls was accounted for as a reduction to additional paid-in capital on the consolidated balance sheets.

Impact on Earnings Per Share

Subsequent to the adoption of ASU 2020-06, we compute the potentially dilutive shares of common stock related to the Notes for periods we report net income using the if-converted method. Upon conversion at maturity, 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 the exercise of the Capped Calls would offset 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.

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. In March 2021, the ICE Benchmark Administration, the administrator of LIBOR, announced that it will cease publication of LIBOR by June 2023. In March 2023, we amended the Credit Facility to transition LIBOR to the Secured Overnight Financing Rate (SOFR) effective April 1, 2023. The annual interest rate for SOFR borrowings will be equal to term SOFR (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%.

In February 2022, we repaid, in full, the $250.0 million outstanding under the Credit Facility. Prior to repayment, the outstanding loan bore weighted-average interest at the one-month LIBOR of approximately 1.65% and 1.60% resulting in interest expense of $1.4 million and $4.1 million during fiscal 2021 and 2022 and 1.61% resulting in interest expense of $0.3 million during the first quarter of fiscal 2023.

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: 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 2023.

Note 8. Commitments and Contingencies

Leases

At the end of fiscal 2023, we had various non-cancelable operating and finance lease commitments for office facilities. Refer to Note 9—Leases for additional information regarding lease commitments.

Contractual Purchase Obligations

At the end of fiscal 2023, we had $445.0 million of non-cancelable contractual purchase obligations primarily related to inventory purchase commitments, software service contracts, and hosting arrangements. In order to manage future demand for our products, we enter into agreements with manufacturers and suppliers to procure inventory based upon our demand forecasts.

Letters of Credit

At the end of fiscal 2022 and 2023, we had outstanding letters of credit in the aggregate amount of $6.7 million and $8.0 million in connection with our facility leases. The letters of credit are collateralized by either restricted cash or the Credit Facility and mature on various dates through September 2030.

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, no material loss contingency has been recorded on our consolidated balance sheet as of the end of fiscal 2023.

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.

In June 2022, we entered into an eight-year sublease through July 2030 for a new headquarters facility in Santa Clara, California with total lease payments of $100.2 million that include rent escalation and abatement clauses. The sublease of space with total lease payments of $89.4 million commenced in August 2022. Additional space with lease payments of $10.8 million will commence in May 2024 and end in July 2030 and therefore are excluded from our future lease payments disclosure below.

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.

We also lease certain engineering test equipment under financing agreements. These finance leases are three years and contain a bargain purchase option at the end of the respective lease term. It is reasonably certain that the bargain purchase option will be exercised.

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

	Fiscal Year Ended		
	2021	2022	2023
Fixed operating lease cost	$ 37,411	$ 37,598	$ 47,533
Variable lease cost [1]	9,168	10,228	8,521
Short-term lease cost (12 months or less)	5,734	4,178	3,787
Finance lease cost:			
Amortization of finance lease right-of-use assets	—	384	3,028
Interest on finance lease liabilities	—	42	330
Total finance lease cost	$ —	$ 426	$ 3,358
Total lease cost	$ 52,313	$ 52,430	$ 63,199

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

Supplemental information related to leases is as follows (in thousands):

	Fiscal Year Ended	
	2022	2023
Operating leases:		
Weighted-average remaining lease term (in years)	4.5	5.2
Weighted-average discount rate	5.7 %	6.1 %
Finance leases:		
Finance lease right-of-use assets, gross [1]	$ 3,577	$ 17,596
Accumulated amortization[1]	(384)	(3,412)
Finance lease right-of-use assets, net [1]	$ 3,193	$ 14,184
Finance lease liabilities, current [2]	1,035	5,432
Finance lease liabilities, non-current [3]	1,487	4,765
Total finance lease liabilities	$ 2,522	$ 10,197
Weighted-average remaining lease term (in years)	3.6	3.3
Weighted-average discount rate	2.7 %	5.1 %

[1] Included in the consolidated balance sheets within property and equipment, net.

[2] Included in the consolidated balance sheets within accrued expenses and other liabilities.

[3] Included in the consolidated balance sheets within other liabilities, non-current.

Supplemental cash flow information related to leases is as follows (in thousands):

	Fiscal Year Ended	
	2022	2023
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows for operating leases	$ 36,648	$ 49,955
Financing cash outflows for finance leases	$ 1,000	$ 6,138
Right-of-use assets obtained in exchange for lease liabilities:		
Operating leases	$ 7,517	$ 80,962
Finance leases	$ 3,577	$ 14,019

Future lease payments under our non-cancelable leases at the end of fiscal 2023 are as follows (in thousands):

Fiscal Years Ending	Operating Leases	Finance Leases
2024	$ 45,153	$ 5,839
2025	48,315	4,728
2026	36,366	183
2027	19,384	—
2028	21,062	—
Thereafter	44,274	—
Total future lease payments	$ 214,554	$ 10,750
Less: imputed interest	(38,374)	(553)
Present value of total lease liabilities	$ 176,180	$ 10,197

Note 10. Restructuring and Other

During fiscal 2021, we carried out the following restructuring and other activities:

- 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.
- 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. All amounts were paid prior to the end of fiscal 2022.
- 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 2023, 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 2023, 304,076,234 shares of Class A common stock were issued and outstanding.

Common Stock Reserved for Issuance

At the end of fiscal 2023, we had reserved shares of common stock for future issuance as follows:

Shares underlying outstanding stock options	9,268,498
Shares underlying outstanding restricted stock units	26,760,520
Shares reserved for future equity awards	20,661,582
Shares reserved for future employee stock purchase plan awards	5,309,812
Total	62,000,412

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 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, which was completed in the fourth quarter of fiscal 2022. In March 2022, our Board of Directors authorized the repurchase of up to an additional $250.0 million of our common stock, of which $31.1 million remained available at the end of fiscal 2023. In March 2023, our Board of Directors authorized the repurchase of up to an additional $250.0 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 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. During fiscal 2022, we repurchased and retired 8,489,168 shares of common stock at an average purchase price of $23.56 per share for an aggregate repurchase price of $200.0 million. During fiscal 2023, we repurchased and retired 7,832,229 shares of common stock at an average purchase price of $27.95 per share for an aggregate repurchase price of $218.9 million. Since the end of fiscal 2023, we have repurchased $31.1 million of additional shares.

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. Our equity awards generally vest over a two to four year period and expire no later than ten years from the date of grant. Starting in the fourth quarter of fiscal 2018, we discontinued granting stock options.

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, for a period of not more than ten years, commencing on February 1, 2016, in an amount equal to 5% of the total number of shares of our capital stock outstanding as of the immediately preceding January 31 (the Evergreen Increase). In March 2022, our Board of Directors approved an amendment and restatement of the 2015 Plan to clarify the effect of our change to a 52/53 week fiscal year in September 2019 on the Evergreen Increase.

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.

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, 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 2021 and 2023, ESPP resets resulted in total modification charges of $23.8 million and $10.4 million, respectively, to be recognized over their new offering periods. There was no ESPP reset during fiscal 2022.

During fiscal 2021, 2022 and 2023, we recognized $25.8 million, $35.4 million and $22.9 million, of stock-based compensation expense related to our 2015 ESPP. At the end of fiscal 2023, total unrecognized stock-based compensation cost related to our 2015 ESPP was $31.5 million, which is expected to be recognized over a weighted-average period of approximately 1.6 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 2022	12,268,938	$ 10.25	3.5	$ 198,266
Options exercised	(2,988,068)	8.29		
Options forfeited	(12,372)	1.83		
Balance at the end of fiscal 2023	9,268,498	$ 10.90	2.7	$ 176,674
Vested and exercisable at the end of fiscal 2023	9,077,014	$ 11.04	2.6	$ 171,315

The aggregate intrinsic value of options vested and exercisable at the end of fiscal 2023 is calculated based on the difference between the exercise price and the closing price of $29.91 of our common stock on the last day of fiscal 2023. The aggregate intrinsic value of options exercised during fiscal 2021, 2022 and 2023 was $118.8 million, $105.1 million and $63.5 million.

The total grant date fair value of options vested during fiscal 2021, 2022 and 2023 was $20.1 million, $16.5 million and $7.0 million.

During fiscal 2021, 2022 and 2023, we recognized $8.6 million, $7.7 million and $4.9 million, of stock-based compensation expense related to stock options. At the end of fiscal 2023, total unrecognized employee stock-based compensation cost related to outstanding options was $2.4 million, which is expected to be recognized over a weighted-average period of 1.1 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		
	2021	**2022**	**2023**
Employee Stock Options			
Expected term (in years)	5.65	n/a	n/a
Expected volatility	52.07%	n/a	n/a
Risk-free interest rate	0.3%	n/a	n/a
Dividend rate	—	n/a	n/a
Fair value of common stock	$15.79	n/a	n/a
Employee Stock Purchase Plan			
Expected term (in years)	0.5 - 2.0	0.5 - 2.0	0.5 - 2.0
Expected volatility	52% - 113%	44% - 61%	45% - 54%
Risk-free interest rate	0.1% - 0.4%	0.1% - 0.2%	0.9% - 4.0%
Dividend rate	—	—	—
Fair value of common stock	$9.07 - $15.26	$23.63 - $26.69	$28.73 - $31.68

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 stock options and ESPP purchase rights.

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

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

	Number of RSUs and PRSUs Outstanding	Weighted-Average Grant Date Fair Value	Aggregate Intrinsic Value (in thousands)
Unvested balance at the end of fiscal 2022	28,712,878	$ 19.53	$ 757,446
Granted	15,319,768	29.67	
Vested	(13,915,802)	20.05	
Forfeited	(3,356,324)	21.75	
Unvested balance at the end of fiscal 2023	26,760,520	$ 24.78	$ 800,407

During fiscal 2023, we granted 1,147,187 shares of PRSUs, at a target percentage of 100%, with both performance and service vesting conditions payable in common stock, from 0% to 150% of the target number granted, contingent upon the degree to which the fiscal 2023 performance condition is met. A total of 1,770,282 shares of PRSUs were earned at the end of fiscal 2023 based on the fiscal 2023 performance conditions achieved and a portion of these shares are subject to service conditions through the remaining vesting periods. The incremental shares of PRSUs earned will be granted in the first quarter of fiscal 2024.

The aggregate fair value, as of the respective vesting dates, of RSUs and PRSUs that vested during fiscal 2021, 2022 and 2023 was $183.4 million, $322.2 million and $402.7 million.

During fiscal 2021, 2022 and 2023, we recognized $199.1 million, $242.1 million and $299.7 million in stock-based compensation expense related to RSUs and PRSUs. At the end of fiscal 2023, total unrecognized employee compensation cost related to unvested RSUs and PRSUs was $588.4 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 2022	54,977	$ 20.02	$ 1,450
Vested	(54,977)	20.02	
Forfeited	—	—	
Unvested balance at the end of fiscal 2023	—	$ —	$ —

The aggregate fair value of restricted stock that vested during fiscal 2021, 2022 and 2023 was $18.3 million, $10.4 million and $1.9 million.

During fiscal 2021 and 2022, we recognized $9.3 million and $1.8 million in stock-based compensation expense related to restricted stock. The remaining stock-based compensation expense recognized related to restricted stock was not material during fiscal 2023.

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		
	2021	2022	2023
Cost of revenue—product	$ 4,001	$ 6,334	$ 10,245
Cost of revenue—subscription services	14,979	21,240	22,630
Research and development	117,220	142,264	161,694
Sales and marketing	65,248	71,439	72,507
General and administrative	40,896	45,686	60,541
Total stock-based compensation expense	$ 242,344	$ 286,963	$ 327,617

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

Note 13. Net Income (Loss) per Share Attributable to Common Stockholders

Basic and diluted net income (loss) per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. Basic net income (loss) per share attributable to common stockholders is computed by dividing the net income (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 income (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 and PRSUs, unvested restricted stock, the shares underlying the conversion option in our Notes to the extent dilutive, and common stock issuable pursuant to the ESPP. The adoption of ASU 2020-06 at the beginning of fiscal 2023 eliminates the treasury stock method and instead requires the application of the if-converted method to calculate the impact of our Notes on diluted EPS. Using this method, the numerator is affected by adding back interest expense related to the Notes and the denominator is affected by including the effect of potential share settlement, if the effect is dilutive. All potentially dilutive common stock equivalents, including from our Notes, have been excluded from the calculation of diluted net loss per share attributable to common stockholders in periods of net loss as their effect is anti-dilutive.

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

	Fiscal Year Ended		
	2021	2022	2023
Numerator:			
Net income (loss) attributable to common stockholders, basic	$ (282,076)	$ (143,259)	$ 73,071
Add: Interest charges related to our Notes	—	—	3,314
Net income (loss) attributable to common stockholders, diluted	$ (282,076)	$ (143,259)	$ 76,385
Denominator:			
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, basic	267,824	285,882	299,478
Add: Dilutive effect of common stock equivalents	—	—	39,706
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, diluted	267,824	285,882	339,184
Net income (loss) per share attributable to common stockholders, basic	$ (1.05)	$ (0.50)	$ 0.24
Net income (loss) per share attributable to common stockholders, diluted	$ (1.05)	$ (0.50)	$ 0.23

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

	Fiscal Year Ended		
	2021	2022	2023
Stock options to purchase common stock	23,180	15,686	10,516
Unvested RSUs and PRSUs	31,980	32,491	29,780
Unvested restricted stock	1,145	257	6
Shares related to convertible senior notes	21,884	21,884	—
Shares issuable pursuant to the ESPP	2,148	2,122	885
Total	80,337	72,440	41,187

Note 14. Other Income (Expense), Net

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

	Fiscal Year Ended		
	2021	2022	2023
Interest income [1]	$ 17,442	$ 9,371	$ 17,320
Interest expense [2]	(31,403)	(36,677)	(4,749)
Foreign currency transactions gains (losses)	2,507	(5,235)	(8,345)
Other income	2,327	2,443	4,069
Total other income (expense), net	$ (9,127)	$ (30,098)	$ 8,295

(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 debt discount and debt issuance costs, contractual interest expense related to our debt and accretion of our finance lease liabilities.

Note 15. Income Taxes

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

	Fiscal Year Ended		
	2021	2022	2023
Domestic	$ (312,119)	$ (192,058)	$ 39,004
International	41,959	63,562	52,804
Total	$ (270,160)	$ (128,496)	$ 91,808

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

	Fiscal Year Ended		
	2021	2022	2023
Current:			
State	$ 442	$ 592	$ 5,999
Foreign	8,006	12,525	12,020
Total	$ 8,448	$ 13,117	$ 18,019
Deferred:			
Federal	$ (218)	$ —	$ (639)
State	—	—	(99)
Foreign	3,686	1,646	1,456
Total	$ 3,468	$ 1,646	$ 718
Provision for income taxes	$ 11,916	$ 14,763	$ 18,737

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		
	2021	2022	2023
Tax at federal statutory rate	$ (56,734)	$ (26,984)	$ 19,280
State tax, net of federal benefit	349	468	4,625
Stock-based compensation expense	(604)	(19,658)	(11,976)
Research and development tax credits	(14,138)	(16,783)	(26,634)
U.S. taxes on foreign income	14,021	25,059	19,065
Foreign rate differential	2,282	(1,698)	(425)
Withholding tax	34	143	2,339
Change in valuation allowance	63,146	48,270	10,631
Non-deductible expenses	—	4,381	2,091
Other	3,560	1,565	(259)
Provision for income taxes	$ 11,916	$ 14,763	$ 18,737

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	
	2022	2023
Deferred tax assets:		
Net operating loss carryforwards	$ 369,904	$ 198,495
Tax credit carryover	134,085	171,775
Accruals and reserves	22,625	34,506
Deferred revenue	66,242	87,026
Stock-based compensation expense	25,247	25,564
ASC 842 lease liabilities	28,577	40,772
Capitalized research and development	—	154,027
Other	1,879	4,950
Total deferred tax assets	$ 648,559	$ 717,115
Valuation allowance	(554,553)	(598,997)
Total deferred tax assets, net of valuation allowance	$ 94,006	$ 118,118
Deferred tax liabilities:		
Depreciation and amortization	$ (12,992)	$ (31,744)
Deferred commissions	(53,219)	(53,421)
Convertible debt	(4,642)	—
ASC 842 right-of-use assets	(24,608)	(36,366)
Acquired intangibles and goodwill	(6,850)	(4,702)
Interest income	(874)	(2,521)
Total deferred tax liabilities	$ (103,185)	$ (128,754)
Net deferred tax liabilities	$ (9,179)	$ (10,636)

At the end of fiscal 2023, the undistributed earnings of $176.2 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 2023, we had net operating loss carryforwards for federal income tax purposes of approximately $795.1 million and state income tax purposes of approximately $578.0 million. The federal net operating loss carryforwards have an indefinite life while the state net operating loss carryforwards begin to expire in 2025.

We had federal and state research and development tax credit carryforwards of approximately $134.2 million and $116.0 million at the end of fiscal 2023. 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.

Starting in fiscal 2023, changes to Section 174 of the Internal Revenue Code made by the Tax Cuts and Jobs Act of 2017 no longer permit an immediate deduction for research and development expenditures in the tax year that such costs are incurred. These costs are capitalized resulting in an increase in deferred tax assets and state income taxes.

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 $70.1 million and $44.4 million, respectively, during fiscal 2022 and 2023.

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.

Uncertain Tax Positions

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

	Fiscal Year Ended		
	2021	**2022**	**2023**
Gross unrecognized tax benefits—beginning balance	$ 28,570	$ 39,571	$ 51,582
Decreases related to tax positions taken during prior years	(345)	(173)	—
Increases related to tax positions taken during prior years	1,881	1,201	2,172
Increases related to tax positions taken during current year	9,465	10,983	15,143
Gross unrecognized tax benefits—ending balance	$ 39,571	$ 51,582	$ 68,897

At the end of fiscal 2023, our gross unrecognized tax benefit was approximately $68.9 million, $6.2 million of which if recognized, would have an impact on the effective tax rate.

At the end of fiscal 2023, 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. 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		
	2021	2022	2023
United States	$ 1,195,428	$ 1,580,022	$ 1,971,757
Rest of the world	488,751	600,826	781,677
Total revenue	$ 1,684,179	$ 2,180,848	$ 2,753,434

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	
	2022	2023
United States	$ 187,228	$ 259,131
Rest of the world	8,054	13,314
Total long-lived assets	$ 195,282	$ 272,445

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 immediately vest. Our contributions to the plan were $10.2 million, $11.1 million and $12.2 million during fiscal 2021, 2022 and 2023.

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 2023, 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 2023.

The effectiveness of our internal control over financial reporting as of the end of fiscal 2023 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 2023 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.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

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 2023 annual meeting of stockholders (2023 Proxy Statement), which will be filed not later than 120 days after the end of our fiscal year ended February 5, 2023.

Item 11. Executive Compensation.

The information required by this item is incorporated herein by reference to our 2023 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 2023 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 2023 Proxy Statement.

Item 14. Principal Accounting Fees and Services.

Our independent public accounting firm is Deloitte & Touche LLP, San Jose, CA, PCAOB ID No. 34

The information required by this item is incorporated herein by reference to our 2023 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.	10-K	001-37570	10.3	4/7/2022
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+	Offer Letter by and between Pure Storage, Inc. and Kevan Krysler, dated November 15, 2019	10-Q	001-37570	10.2	12/9/2019
10.11+	Pure Storage, Inc. Change in Control and Severance Benefit Plan.	10-Q	001-37570	10.12	12/9/2020
10.12*	Credit Agreement, originally dated as of August 24, 2020 and as amended as of March 15, 2023 among Pure Storage, Inc., the Lenders from time to time party hereto and Barclays Bank PLC, as administrative agent, issuing bank and swingline lender.	—	—	—	—
10.13+	Pure Storage, Inc. Employee Cash Incentive Plan.	8-K	001-37570	10.2	3/16/2018

Exhibit Number	Description	Incorporation By Reference				Filing Date
		Form	SEC File No.	Exhibit	Filing Date	
10.14+	Offer Letter by and between Pure Storage, Inc. and Ajay Singh, dated December 8, 2020	10-K	001-37570	10.16	4/7/2022	
10.15*+	Pure Storage, Inc. Deferred Compensation Plan, effective January 1, 2023	—	—	—	—	
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 31, 2023

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, John Colgrove and Nicole Armstrong, 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 31, 2023
/s/ Kevan Krysler Kevan Krysler	Chief Financial Officer *(Principal Financial Officer)*	March 31, 2023
/s/ Mona Chu Mona Chu	Vice President and Chief Accounting Officer *(Principal Accounting Officer)*	March 31, 2023
/s/ Scott Dietzen Scott Dietzen	Vice Chairman and Director	March 31, 2023
/s/ John Colgrove John Colgrove	Chief Visionary Officer and Director	March 31, 2023
/s/ Andrew Brown Andrew Brown	Director	March 31, 2023
/s/ John Murphy John Murphy	Director	March 31, 2023
/s/ Jeff Rothschild Jeff Rothschild	Director	March 31, 2023
/s/ Roxanne Taylor Roxanne Taylor	Director	March 31, 2023
/s/ Susan Taylor Susan Taylor	Director	March 31, 2023
/s/ Greg Tomb Greg Tomb	Director	March 31, 2023
/s/ Mallun Yen Mallun Yen	Director	March 31, 2023