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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 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: 001-38711

SolarWinds Corporation

(Exact name of registrant as specified in its charter)

Delaware	**81-0753267**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
7171 Southwest Parkway, **Building 400** **Austin, Texas**	**78735**
(address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (512) 682.9300

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

Title of Each Class	**Trading Symbol**	**Name of Each Exchange on Which Registered**
Common stock, $0.001 par value	SWI	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 Section 15(d) of the Act. ☐ Yes ☑ No

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

Indicate by check mark whether the registrant has submitted electronically 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	☐	Smaller 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

As of June 30, 2023, the last business day of the registrant’s most recently completed second fiscal quarter, the registrant’s aggregate market value of its shares held by non-affiliates was approximately $525.8 million.

On February 12, 2024, 166,671,373 shares of common stock, par value $0.001 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates certain information by reference from the definitive proxy statement for the registrant’s 2024 Annual Meeting of Stockholders to be filed within 120 days of the registrant’s fiscal year ended December 31, 2023 (the “Proxy Statement”). Except with respect to information specifically incorporated by reference in this Form 10-K, the Proxy Statement is not deemed to be filed as part of this Form 10-K.

SOLARWINDS CORPORATION

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the Private Securities Litigation Reform Act of 1995. Such statements may be signified by terms such as "aim," "anticipate," "believe," "continue," "expect," "feel," "intend," "estimate," "seek," "plan," "may," "can," "could," "should," "will," "would" or similar expressions and the negatives of those terms. In this report, forward-looking statements include statements regarding our financial projections, future financial performance and plans and objectives for future operations including, without limitation, the following:

- expectations regarding our financial condition and results of operations, including revenue, revenue growth, cost of revenue, operating expenses, operating income, non-GAAP operating income, non-GAAP operating margin, adjusted EBITDA and adjusted EBITDA margin, cash flows and effective income tax rate;
- expectations regarding the impact on our business of the SEC litigation resulting from the cyberattack on our Orion Software Platform and internal systems (the "Cyber Incident");
- expectations regarding our evolution from monitoring to observability and our subscription-first approach;
- expectations regarding investment in product development and the results of those efforts;
- expectations regarding our selling efforts toward enterprise customers as well as our ability to convert our maintenance customers to subscription products;
- expectations regarding the impact of macroeconomic conditions, including the wars in Ukraine and Israel, rising escalations in the Middle East, geopolitical tensions involving China, disruptions in the global supply chain and energy markets, inflation, uncertainty over liquidity concerns in the broader financial services industry, rising interest rates, changes in foreign exchange rates or other geopolitical events globally on our business and financial results;
- expectations regarding our international earnings and investment of those earnings in international operations;
- expectations regarding our capital expenditures;
- expectations concerning acquisitions and opportunities resulting from our acquisitions; and
- our beliefs regarding the sufficiency of our cash and cash equivalents, cash flows from operating activities and borrowing capacity.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially and adversely different from any future results, performance or achievements expressed or implied by the forward-looking statements. Factors that may cause such differences include, but are not limited to, the risks described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K, and those discussed in other documents we file with the Securities and Exchange Commission. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date of this annual report on Form 10-K. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially and adversely from those anticipated in these forward-looking statements, even if new information becomes available in the future.

In this report "SolarWinds," "Company," "we," "us" and "our" refer to SolarWinds Corporation and its consolidated subsidiaries. The term "Silver Lake Funds" refers to Silver Lake Partners IV, L.P., Silver Lake Technology Investors IV, L.P., and SLP Aurora Co-Invest, L.P., and the term "Silver Lake" refers to Silver Lake Group, L.L.C., the ultimate general partner of the Silver Lake Funds. The term "Thoma Bravo Funds" refers to Thoma Bravo Fund XI, L.P., Thoma Bravo Fund XI-A, L.P., Thoma Bravo Fund XII, L.P., Thoma Bravo Fund XII-A, L.P., Thoma Bravo Executive Fund XI, L.P., Thoma Bravo Executive Fund XII, L.P., Thoma Bravo Executive Fund XII-a, L.P., Thoma Bravo Special Opportunities Fund II, L.P. and Thoma Bravo Special Opportunities Fund II-A, L.P. and the term "Thoma Bravo" refers to Thoma Bravo, LLC, the ultimate general partner of the Thoma Bravo Funds. The term "Sponsors" refers collectively to Silver Lake and Thoma Bravo, together with the Silver Lake Funds and the Thoma Bravo Funds. The term "Lead Sponsors" refers collectively to the Silver Lake Funds, the Thoma Bravo Funds and their respective affiliates.

PART I

ITEM 1. BUSINESS

Overview

SolarWinds is a leading provider of observability and information technology, or IT, management software. Our mission is to help customers accelerate their digital transformations with simple, powerful and secure solutions designed for today's hybrid IT and multi-cloud environments. We offer full-stack observability solutions designed to provide organizations worldwide, regardless of type, size, or complexity, with a comprehensive and unified view of today’s modern, distributed and hybrid network environments.

Our business is focused on building products to enable technology professionals and leaders to securely monitor and manage the performance of their IT environments, whether on-premises, in the cloud or in hybrid deployments.

Organizations across industries use technology and software to drive business transformation and competitive differentiation. As organizations deploy and rely on a mix of on-premises, public and private cloud and hybrid IT environments to support their business transformations, they require observability, monitoring and management solutions designed to work across their increasingly complex environments and provide full, unified visibility into the performance of the entire IT stack.

Our products are designed to monitor and manage networks, systems, databases and applications across on-premises, multi-cloud and hybrid IT environments without the need for customization or, in most cases, professional services. Since the launch of our Network Performance Monitor product in 2001, we have significantly expanded our product offerings and established a leadership position in observability, network, systems, database, application and cloud monitoring markets by delivering simple and compelling value-based solutions. In addition, our IT service management solutions provide complementary cloud-based and on-premises service desk management capabilities.

Our approach has enabled us to market and sell our products directly to network and systems engineers, database administrators, storage administrators, DevOps, SecOps and service desk professionals. These technology professionals have become empowered to influence the selection, and often the purchase, of products needed to rapidly solve the problems they face.

We continuously engage with IT service and operations professionals, DevOps and SecOps professionals, and database administrators (DBAs) to understand the challenges they face maintaining high-performing and highly available hybrid IT infrastructures. The insights we gain from them, in places like THWACK, our online user community of more than 195,000 registered members, help us to address customers’ needs now, and in the future. The THWACK community provides direct connections between our engineers and their end users to understand what they need to solve their biggest problems—and how they want those problems solved. It also creates an open forum to hear first-hand the emerging challenges these technology professionals encounter and acts as a valuable sounding board to understand what they think on many topics. Where other vendors prioritize product requirements based on the needs of a small set of large customers, we prioritize the requirements voiced by our user community.

Today, as the problems organizations face deepen in complexity, and the time available to identify and resolve issues shrinks, technology investments have increased in their strategic importance, and we have expanded the customer profiles we serve. In addition to the technology professionals we have directly served since our inception, we increasingly engage with technology and business leaders to help them solve more complicated and connected challenges. In our account-based marketing motion, we recognize there are multiple stakeholders who influence buying decisions, and we believe these customers feel better supported by their ongoing partnerships with SolarWinds. As a result, these customers place their confidence in a vendor capable of supporting their needs across a unified and expandable platform of solutions, rather than an assortment of point products.

We believe our continued transition to a platform-based approach that we call the "SolarWinds Platform" addresses a significant portion of the observability market, which includes IT operations management, network management, IT service management, security analytics, intelligence, response and orchestration and database administration and development tools.

Most of our offerings are purpose-built on the SolarWinds Platform so our customers can easily purchase and deploy our products individually or as an integrated offering as their needs evolve. We utilize a cost-efficient, integrated global product development model and have expanded our offerings over time through both organic development and strategic acquisitions.

We have grown while maintaining high levels of operating efficiency. We currently derive our revenue from a combination of subscription revenue from the sale of observability, application performance management and service desk products, and license and maintenance revenue from the sale of our on-premises network, systems, storage and database management perpetual license products. Over time, we intend to grow our subscription revenue by focusing more on selling subscriptions over perpetual licenses, which we call our subscription-first approach.

SolarWinds Corporation was incorporated in the State of Delaware in 2015. On February 5, 2016, we were acquired by affiliates of Silver Lake Group, L.L.C. and Thoma Bravo, LLC in a take-private transaction, or the Take Private. In October 2018, we completed our initial public offering, or IPO, and once again became a publicly traded company.

Execution Core Principles

At the heart of everything we do as a company are five principles that guide our business and help explain why technology professionals and leaders choose our products:

Focus on Technology Professionals and Leaders

We are committed to understanding technology professionals and leaders and the challenges they face managing the complex, ever-changing demands of business-critical IT environments and the end-user experience they deliver. We have a substantial customer base and community of technology professionals and leaders. We engage with them daily through digital marketing, customer success programs and online communications, including through THWACK, our online community that provides forums to registered members, as well as tools and valuable resources. We also manage several corporate and company-sponsored blogs in which we provide perspectives and information relevant to the observability, IT management, database and service management markets, as well as web-based events designed to train and inform participants about deeper aspects of our products. These resources allow us to ask what a broad sample of technology professionals and leaders need rather than ask or react to a few opinions.

Build Great Products for the Entire Market

Organizations of all sizes have complex IT environments that make managing IT challenging. Our commitment to technology professionals and leaders allows us to deliver products built to solve well-understood IT problems with simple, powerful and secure solutions for the entire market, from very small businesses to the largest of global enterprises, regardless of whether their IT is located on-premises, in the public or private cloud, or some combination of all.

We design our products to be easy to access, try, buy, deploy and use. Most of our offerings are built on the SolarWinds Platform, which allows our customers to purchase and implement these products individually, and then add more of these products as needed or buy a combination of these products as an integrated offering. This allows customers to buy what they need when they need it and grow as their needs evolve. Over time, we intend to offer more and more of our products on the SolarWinds Platform, allowing customers the simplicity of buying additional products than they can today.

Capture Demand Using Cost-Efficient, Mass-Reach Digital Marketing

Over two decades, we have honed our use of digital marketing and online tools to find, communicate with and sell to potential customers of all levels of sophistication with environments of all levels of complexity and size. They are online every day interacting with their peers, learning about new technologies and searching for solutions to their problems. We believe we build credibility and confidence in our products by being present and active in the communities and on the sites that technology professionals and leaders trust.

Selling from the Inside

We remain committed to the importance of selling from the inside. While we are implementing additional methods of selling, we continue to follow a process and metrics-based approach that drives predictability and consistency which has helped us add new customers and grow our relationships with existing customers.

The size and organization of our sales force enables us to reach thousands of technology professionals and leaders each day. We close transactions from the smallest and most simple to our largest and most complex deals efficiently and in most cases without the need for a traditional outside sales force, product customization or professional services. Depending on the needs and complexity of our end users’ environments, we now provide optional professional services offerings to assist with deployment. Our sales team uses a prescriptive approach designed to manage leads and quickly sell our products under our standardized pricing and contract terms. We believe our selling motion reflects how our customers prefer to do business.

We also recognize that the preferences technology professionals have may not always match those of the senior leadership in their organization, and we address both audiences and sales motions in our growth strategies described below.

Focus on the Long-Term Value of the Relationship with Our Customers

When our customers experience the value of our products, our investment in our product portfolio and our responsiveness to their changing needs, they often expand their relationship with us and become our advocates within both their organizations and their networks of technology professionals. Customers often initially purchase one of our products to solve a known problem and then expand their purchases over time. The power of our approach is evidenced by the long-term relationships we have with our customers which is reflected in our strong customer retention rates.

Growth Strategies

We intend to extend our leadership in observability and IT infrastructure management and grow our market share in adjacent areas, including IT service management and database performance management. The following are key elements of our land, adopt, expand and retain growth strategy designed to reach organizations ranging in size from very small businesses to large enterprises:

Execute our Subscription-First Approach

We will lead with selling subscriptions first across our product portfolios through our on-premises, multi-cloud, and hybrid solutions. This requires continuous engagement with our customers, and the ability to evolve customers forward as new offering capabilities are delivered.

Win New Customers

Our commitment to the value of selling from the inside allows us to win new customers in existing markets where the breadth and strength of our product offerings give us a competitive advantage. Our efficient marketing and sales model and powerful brand recognition and trust among technology professionals enable us to increase our customer base both with practitioners and with IT and business leaders whose IT management challenges require solutions that can grow as their needs expand and evolve.

Increase Penetration Within Our Existing Customer Base

Many of our customers make an initial purchase to meet an immediate need, such as network, application or database performance monitoring in a small portion of their IT infrastructure, and subsequently purchase additional products for other use cases or expansion across their organization. We continue to refine our sales efforts to expand the sales of our products within organizations, particularly those that have multiple purchasers of our IT management products. For example, an important component of our sales execution strategy is to focus on upsell and cross-sell opportunities when renewing expiring contracts.

Invest in and Grow Partner Channel

Channel partners are integral to the overall success SolarWinds has in delivering an excellent customer experience and supporting and driving growth for our valued global channel partners. We are transforming our strategy, team, solutions and customer experience and increasing our focus on the channel growth and development of our partners.

Continue to Solve Old and New Problems

We intend to continue our focus on innovation and bring new products and tools to market to address the problems that technology professionals and leaders ask us to solve. We also intend to continue providing frequent feature releases to our existing products and provide quarterly releases for our on-premises and self-hosted products, and twice-monthly releases for our SaaS products. We are focused on enhancing the overall integration of our products to improve our value proposition and allow our customers to further benefit from expanding their usage of our products as their needs evolve.

Increase Our International Footprint

We believe a substantial market opportunity exists to increase our international footprint across all our product lines. Our observability and service desk products, which are currently sold primarily in North America, have strong international expansion potential. We have made significant investments in recent years to increase our sales and marketing operations internationally and expect continued focus on our international sales and global brand awareness.

Expand into New Markets

We have successfully entered new markets and expanded our product offerings to solve a broader set of challenges for customers. For example, in recent years we broadened our product offerings to address the database, storage, cloud and service desk markets. We intend to further expand into markets where the problems to be solved are well-understood, and our approach provides us with competitive advantages. In addition, as we seek to capture more expansion opportunities within our large customer base and with better visibility within key enterprise accounts, we have also added programs and technologies to support an account-based marketing motion which is designed to allow us to elevate the SolarWinds value proposition and establish a more strategic conversation with critical personas, including those individuals in senior leadership roles and the C-suite.

Product Portfolio

We offer a broad portfolio of products built to provide full-stack observability as well as securely monitor and manage networks, systems, applications, storage, databases, websites and IT service desks. Our products monitor and manage applications and their supporting infrastructure, via an agent or agentlessly, regardless of whether that infrastructure is located on-premises, in the cloud or in a hybrid model.

Our product development is guided by a development framework that allows us to respond quickly to the market and deliver a broad suite of products designed to solve problems that are commonly understood and shared by our customers. Our core product development principles are:

1. We purpose-build products for technology professionals and leaders.
2. Our roadmaps are guided by a large community of users rather than by a select few large customers.
3. We develop products that are intended to sell themselves and be secure, easy to use, powerful and immediately valuable to users.
4. We design and develop our products to integrate and complement each other while providing a consistent user experience.

As part of our "Secure by Design" framework, we have made adaptations and enhancements to the security of our internal environment, software development processes and deployment of our products, including further hardening the security of our environment and systems, adopting zero-trust, assume-breach and least-privilege access mechanisms, addressing the possible risks associated with third-party applications access and redesigning our automated build process to further increase the security and integrity of our products.

IT Management Portfolio

Targeted at IT Ops, DevOps and SecOps professionals, our products provide monitoring and performance management with deep visibility into applications and the full IT stack, while remaining infrastructure-location agnostic. Our comprehensive, one-stop-shop product portfolio covers the needs of all IT professionals and leaders and their hybrid IT environments:

- Our suite of network management software provides real-time visibility into network utilization and bandwidth as well as the ability to quickly detect, diagnose and resolve network performance problems.
- Our suite of infrastructure management products monitors and analyzes the performance of applications and their supporting infrastructure, including servers, physical, virtual and cloud infrastructure, storage and databases. We also help our customers strengthen their security and compliance posture with our automated network configuration, log and event management, Security Information and Event Management (SIEM), access rights management, identity monitoring, server configuration monitoring and patching, and secure gateway and file transfer products.
- Our suite of application performance management software enables visibility into log data, cloud infrastructure metrics, applications, tracing and digital experiences.
- Our IT service management software provides a robust and easy-to-use comprehensive, ITIL-compliant service desk solution for companies of all sizes. We help our customers manage their employee service

challenge needs whether through simple ticketing or a powerful service desk solution, removing the manual burden of managing incoming tickets and tracking technology assets with the products' cutting-edge automation, artificial intelligence and machine learning capabilities.

- Our suite of database performance management software monitors, analyzes, diagnoses, and optimizes database performance and operations for the Microsoft data platform, as well as many other database management system (DBMS) platforms, and traditional, open-source, and cloud-native databases hosted on-premises, in the cloud, and in hybrid models.

Evolving from Monitoring to Observability

Specialized monitoring solutions will continue to be relevant and needed to support customers' requirements, but to address the growing complexity faced by technology professionals and leaders, we believe that we must evolve, further integrate and extend these point products into robust and extensive observability offerings on the SolarWinds Platform. Because of the continually elevated needs of the modern enterprise—and the intensifying complexity of the challenges IT practitioners and leaders face—we believe that the future convergence of our Hybrid Cloud Observability and SolarWinds Observability solutions on the SolarWinds Platform, enriched by our service management offerings, will deliver the solution these audiences have voiced in the input we have gathered from them. The SolarWinds approach to observability goes beyond conventional monitoring to accelerate problem resolution through cross-domain analytics and actionable intelligence, delivering greater visibility, service dependency insight, and operational predictability.

- Hybrid Cloud Observability is a comprehensive, integrated, and full-stack observability solution built to integrate data across the IT ecosystem, including networks, servers, applications and databases.
- SolarWinds Observability delivers unified and comprehensive visibility for cloud-native, custom web applications combining digital experience, application, network, infrastructure, log and database monitoring to help ensure optimal service levels and user satisfaction with key business services.

We have also introduced integrations between our service management and observability offerings to help technology professionals reduce the mean time to detect and the mean time to resolve issues.

Our Customers

As of December 31, 2023, we had over 300,000 customers worldwide. We define customers as individuals or entities that have purchased one or more of our products under a unique customer identification number since our inception for our perpetual license products and individuals or entities that have an active subscription for at least one of our subscription products. Each unique customer identification number constitutes a separate customer regardless of the amount purchased. We may have multiple purchasers of our products within a single organization, each of which may be assigned a unique customer identification number and deemed a separate customer.

Our customers represent organizations ranging in size from very small businesses to large enterprises and span a broad range of industries, including financial services, manufacturers, retailers, educational organizations, and national, federal, state, and local governments. Our approach allows us to both sell to a broad variety of potential customers and close large transactions with customers of significant size.

As the landscape for IT infrastructure and software deployment worldwide rapidly changes to meet businesses' evolving needs, the performance, speed, availability and security of IT have become critical to business strategy. The job of the technology professionals who deploy and manage these environments—and the IT leaders who are responsible for the performance of both internal and external end-user experiences—is more challenging than ever.

Growing IT Complexity Creates Significant Challenges for Organizations

Together with the increasing complexities of hybrid and distributed workforces, intensifying cyber threats, and the intricacies of modernizing applications and multi-cloud migrations, technology professionals and leaders must balance the realities of budget and resource constraints.

As organizations deploy and rely on a mix of on-premises, public and private cloud and hybrid IT environments to support their business transformations, they require observability, monitoring and management solutions that work across their increasingly complex environments and provide full visibility into the performance of the entire IT stack.

Empowerment of the Technology Professional

The technology professionals charged with managing these complex and business-critical infrastructures are increasingly responsible for making technology choices to help ensure the performance of their IT infrastructure meets the needs of the business. Additionally, the democratization of IT spend has expanded influence in software purchase decisions from only the highest levels of an organization's IT department to technology professionals, who can offer additional perspectives from those of CIOs or other IT decision-makers. We have found that technology professionals prefer to trial software products in real time to determine if the products meet their needs. They also want the flexibility to select from a range of IT management products to find those best suited to address their specific challenges. In this environment, technology professionals are among the biggest influencers of software-purchasing decisions within their organizations. Further, the technology professionals who have relied on SolarWinds continue to trust us as their careers progress, and we routinely engage with CIOs and other IT leaders who bring us into their organization as they move up in leadership ranks.

Limitations of Alternative Solutions

Alternative IT management solutions have limitations that impair their ability to efficiently serve the unique needs of technology professionals. These solutions can be expensive, complicated and inflexible and may require significant professional services to customize, implement, operate and maintain.

Given the challenges associated with operating across a complex range of dynamic, hybrid IT environments and the limited ability of existing solutions to address these challenges in the ways that technology professionals want them addressed, we believe there is a significant market opportunity for broad hybrid IT management and observability solutions purpose-built to serve the needs of technology professionals.

Marketing and Sales

We market and sell our products directly to technology professionals with a primarily low-touch, high-velocity digital marketing and sales motion that we believe is unique and hard to replicate in the software industry. Our marketing efforts and selling motion allow us to effectively capture demand and maintain high levels of sales productivity at low customer acquisition costs.

We target our marketing efforts and selling motion directly at network, systems, applications, database, DevOps and SecOps professionals and leaders within organizations. We believe this approach provides us with a significant advantage in today's environment in which purchasing influence and power largely resides with the technology professionals and leaders themselves.

Technology professionals often find our products when they are online searching for a solution to address a specific need and use our full-featured trials to experience our purpose-built, powerful, and easy-to-use products in their environments. These experiences often lead to initial purchases of one or more products and, over time, purchases of additional products and advocacy within both their organizations and their professional networks.

As these technology professionals advance through their careers and rise in seniority to take on IT leadership roles, they routinely engage SolarWinds to either scale up to meet broader sets of challenges for their organizations or to introduce SolarWinds when they move to a new organization.

Marketing

We have built a highly flexible and analytics-driven direct marketing model designed to efficiently drive website traffic and high-quality leads that are typically trials of full-featured products from our websites. By providing trials of full-featured products, we enable prospective customers to easily explore the capabilities of our products and easily transition from trial to sale. We also have a marketing motion directed at current customers designed to educate them about features of products they own, products they do not own and how to trial new products.

We make broad use of digital marketing tools including search engines, targeted email campaigns, localized websites, virtual events, free IT management tools, display advertising, affiliate marketing, account-based marketing, social media, e-book distribution, video content, blogging and webcasts.

We also engage both existing and prospective customers using our online community, THWACK. Within THWACK, we provide forums, solutions, tools, webcasts, content and other valuable resources relevant to our market, and our users also generate new content that adds to and expands the breadth of content available. This community is designed to train and inform technology professionals about our products, keep us connected to them and amplify word-of-mouth marketing for our products.

Sales

We refer to our traditional selling motion as "selling from the inside." This approach is rooted in having our sales organization sell online or over the phone, using a prescriptive approach to managing leads and adhering to standardized pricing and contract terms. We close transactions of all sizes and locations through our selling-from-the-inside approach. We augment this high-velocity motion with a targeted, high-touch enterprise sales team and Customer Success motion that is designed to elevate and drive higher-level strategic conversations and opportunities within targeted customer accounts.

Our sales organization is divided into our dedicated sales team and our retention and maintenance renewal team. Our dedicated sales team focuses on sales of new products to new and existing customers, along with transitioning our maintenance customers to our subscription offerings. Our dedicated sales team receives high-quality leads from our marketing motion and engages with the prospect to close the sale. We adhere to a disciplined, data-driven approach to converting leads quickly and efficiently based on our understanding of the prospect's specific product demands and the inflection points in the selling process. As we expand and evolve our sales motion, we also intend to grow our partner relationships and routes to market.

Our retention and maintenance renewal team focuses on renewing our subscription and maintenance agreements with our customers, along with transitioning our maintenance customers to our subscription offerings. Our conversations with these customers begin months before the renewal date to support our customers, and we work with them through the renewal process.

Partners

We sell our software through a variety of partners to supplement and complement our direct sales force, expand our global presence, reach various market segments and help us to initiate and fulfill sales orders from state, local and federal governments and those commercial customers that prefer to make purchases through a partner. We contract directly with end customers when we sell our products through channel partners. We have partners who proactively create demand for our products and bring new opportunities and customers to us. Our partner network includes channel partners, cloud service providers, global systems integrators, technology distributors, value-added resellers and managed service providers. In October 2022, we announced our Transform Partner Program, which provides incentives to drive partner demand, as well as resources to enable partners to position SolarWinds more effectively and efficiently.

Research and Development

Our research and development organization is primarily responsible for the design, development, testing and deployment of new products and improvements to existing products, with a focus on ensuring that our products integrate with and complement one another. Our focus is on building and scaling observability and service management applications and solutions across multiple deployment and operating environments—private, hybrid and multi-cloud, all on a foundation of "Secure by Design".

In our software development process, we work closely with our user community throughout the development process to build what is needed for the problems technology professionals face every day. This includes regularly having a subset of our customers participate in validating that our product use cases and features will solve their problems.

Over more than a decade, we have honed our approach to building a development organization that allows us to build products and enhance existing products quickly and efficiently. Our global development model allows us to source from a large pool of talented resources by participating in multiple labor markets to match the best person for each role. We utilize small scrum teams, each dedicated to specific product modules that follow a standard set of practices to continuously build and test their code. We share our development values across our offices and aim to assign meaningful design and development work to our international locations.

In addition to building organically, we also may introduce new technology through relationships with other technology companies. We believe this will strengthen the overall value proposition of our products in any IT environment.

We believe that we have developed a differentiated development and innovation process that allows us to release new software rapidly, efficiently and with a high level of quality.

Competition

We operate in a highly competitive industry that is characterized by constant change and innovation. Changes in networks, applications, databases, devices, operating systems and deployment environments result in continuously evolving customer requirements. Our competitors and potential competitors include:

- network management and IT vendors such as BMC Software, Cisco Systems, IBM and Micro Focus;
- cloud and application performance monitoring vendors, including Datadog, Dynatrace and New Relic;
- IT service management vendors such as Atlassian, FreshWorks and ServiceNow; and
- database management vendors, including Quest and Redgate.

We believe the principal competitive factors in our market are:

- brand awareness and reputation among technology professionals and leaders, including IT professionals and executives, DBAs and DevOps and SecOps professionals;
- product capabilities, including scalability, performance, security and reliability;
- ability to solve problems for companies of all sizes and infrastructure complexities;
- ease of use;
- low total cost of ownership;
- flexible deployment models, including on-premises, in multi-cloud or in a hybrid environment;
- breadth of vendor capabilities and the ease with which customers can expand as their needs evolve;
- strength of sales and marketing efforts; and
- focus on customer success.

We believe that we compete effectively across these factors as our products and marketing efforts have been designed with these criteria as guideposts.

Intellectual Property

We rely on a combination of patent, copyright, trademark, trade dress and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights. These laws, procedures and restrictions provide only limited protection. As of December 31, 2023, we owned 34 issued U.S. patents and 233 issued foreign patents, with expiration dates ranging from October 2026 to August 2041. We have also filed approximately 25 currently pending patent applications, but we cannot guarantee that patents will be issued with respect to our current patent applications in a manner that gives us the protection that we seek or at all. Our patents and any future patents issued to us may be challenged, invalidated or circumvented and may not provide sufficiently broad protection or may not prove to be enforceable in actions against alleged infringers.

We endeavor to enter into confidentiality and invention assignment agreements with our employees and contractors and with parties with which we do business to limit access to and disclosure of—and safeguard our ownership of—our proprietary information. We cannot be certain that the steps we have taken will prevent unauthorized use or reverse engineering of our technology. Moreover, others may independently develop technologies that are competitive with ours or that infringe on our intellectual property, and policing unauthorized use of our technology and intellectual property rights can be difficult. The enforcement of our intellectual property rights also depends on any legal actions against these infringers being successful, but these actions may not be successful, even when our rights have been infringed.

Furthermore, effective patent, trademark, trade dress, copyright and trade secret protection may not be available in every country in which our products are available or where we have operations. In addition, the legal standards relating to the validity, enforceability and scope of protection of intellectual property rights are uncertain and still evolving.

Human Capital Management

As of December 31, 2023, we had 2,103 employees, of which 742 were employed in the United States and 1,361 were employed outside of the United States. We strive to be a people-first company and believe we have a positive relationship with our employees, which we continue to nurture and develop. We are not party to any collective bargaining agreement. In certain of the European countries in which we operate, we are subject to, and comply with, local labor law requirements in relation to the establishment of works councils and/or industry-wide collective bargaining agreements. We are often required to consult and seek the consent or advice of these works' councils.

Our mission is to enrich the lives of the people we serve, our employees, customers, shareholders, partners, and communities. Our success is the result of our talented, experienced, and high-performing employees across our organization, including functions such as research and development, sales and marketing, partner success and general and administrative.

We are an equal opportunity employer, committed to inclusion, diversity, and belonging. We seek talent from a wide range of backgrounds and beliefs which help us drive our global company culture and foster our CARE values (Collaborative, Accountable, Ready, and Empathetic). We make employment decisions based on merit, qualifications, and business needs, and without regard to legally protected characteristics or beliefs such as race, color, religion, sex, gender, age, pregnancy, national origin, physical or mental disability, sexual orientation, veteran or military status, citizenship, marital status, or genetic information, or any other any characteristic or belief protected under the applicable law. Our CARE values enable us to build lasting relationships with our communities around the world. We continue to invest heavily in attracting top talent, training and development initiatives and motivating and retaining high-potential employees.

Total Rewards

Our total rewards philosophy encompasses comprehensive, equitable, and market-competitive employee offerings that are essential to attracting and retaining diverse talent. Our appreciation, rewards and benefit programs apply to all of our local and global employee populations. Our wellness programs are carefully crafted to offer physical, mental/emotional, and financial support to our employees and their families. We regularly review our programs and encourage employee feedback about what they value most. In addition to specifically tailored packages for each country based on local market practice and the competitive landscape, we also provide a range of globally available support programs such as an employee assistance program, which consists of online support for health engagement and child development support.

People Culture and Engagement

Our culture and experience philosophy starts with what we call "Solarian Life and Communities," which encompasses enriching employees' lives through continuous engagement and proliferating our CARE values across internal and external communities. Our communities span inclusion and belonging, wellness, sustainability, and giving and are all managed by a group of volunteer employees that we call "Culture Connectors." Managed and enabled by our culture and engagement team, these Culture Connectors run live events, asynchronous activities and challenges, and open-forum roundtable discussions to ensure all employees are energized and engaged by our culture. Central to this is a rich, transparent, and omnichannel communications strategy that bridges the gap between executives and individual contributors, keeps employees informed on important company developments, and provides centralized places to connect and share with other employees.

People Development

Our growth philosophy is driven by the desire for our employees to constantly learn, continuously improve, and eternally evolve. We invest significant resources to actively foster a learning culture throughout the company and to empower our employees to drive their personal and professional growth by equipping them with various learning programs, as well as extensive onboarding and training programs. Our learning programs are available for our employees at all levels of career progression and include e-learning programs, live classes, diversity and inclusion training, mentoring communities, customized learning workshops, management enablement and skills training for current, new and future managers, and employee wellness programs. We believe that by empowering our employees as they strive to grow personally and professionally, we will be able to build a flexible and resilient workforce and maintain and nurture a robust pipeline of talent to fuel our future growth and strategy.

Cyber Incident

On December 14, 2020, we announced that we had been the victim of a cyberattack on our Orion Software Platform and internal systems, or the "Cyber Incident." For further information about the Cyber Incident, see "*Risk Factors*" included in Item 1A of Part I of this Annual Report on Form 10-K, "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Cyber Incident*" included in Item 7 of Part II of this Annual Report on Form 10-K and *Note 16. Commitments and Contingencies* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K.

Additional Information

Our website address is www.solarwinds.com. Our website and the contents therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K. Through a link on the Investor Relations section of our website, we make available the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. All such filings are available free of charge. 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.

ITEM 1A. RISK FACTORS

Summary of Risk Factors

Below is a summary of the principal factors that make an investment in our common stock speculative or risky. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below under the heading "Risk Factors" and should be carefully considered, together with other information in this Form 10-K and our other filings with the SEC, before making an investment decision regarding our common stock.

Risks Related to Our Technology, Cybersecurity and the Cyber Incident

- Cyberattacks, including the Cyber Incident, and other security incidents have resulted, and in the future may result, in compromises or breaches of our and our customers' systems, the insertion of malicious code, malware, ransomware or other vulnerabilities into our systems and products and in our customers' systems, the exploitation of vulnerabilities in our and our customers' environments, theft or misappropriation of our and our customers' proprietary and confidential information, interference with our and our customers' operations, exposure to legal and other liabilities, higher customer, employee and partner attrition, negative impacts to our sales, renewals and upgrade and reputational harm and other serious negative consequences, any or all of which could materially harm our business.
- As a result of the Cyber Incident, we are subject to pending litigation with the SEC, which has and may continue to result in additional costs and expenses, the diversion of management's attention, unfavorable publicity and a negative impact on employee morale, and in the future could result in significant penalties, an adverse effect on our business, reputation, financial condition, results of operations and/or stock price.
- Interruptions or performance problems associated with our internal infrastructure, and its reliance on technologies from third parties, may adversely affect our ability to manage our business and meet reporting obligations.

Risks Related to Our Business and Industry

- Our quarterly revenue and operating results may fluctuate from time to time.
- If we are unable to capture significant volumes of high-quality sales leads from our digital marketing initiatives, account-based marketing and our outbound sales motion, our revenue and operating results could be adversely affected.
- If we are unable to sell products to new customers or to sell additional products or upgrades to our existing customers, it could adversely affect our revenue.
- If we fail to manage our solutions evolution, our financial results could be negatively impacted.

Risks Related to Regulatory, Compliance and Legal Matters

- We are subject to various global data privacy and security regulations, which have and could continue to result in additional costs and liabilities to us.
- We are subject to governmental export controls and economic sanctions laws that could impair our ability to compete in international markets and subject us to liability.

Risks Related to Our Intellectual Property

- The success of our business depends on our ability to obtain, maintain, protect and enforce our intellectual property rights.
- Exposure related to any future intellectual property litigation could adversely affect our results of operations.

Risks Related to Our Indebtedness

- Our substantial indebtedness could adversely affect our financial health and our ability to obtain financing in the future, react to changes in our business and meet our obligations with respect to our indebtedness.
- We may be able to incur substantially more indebtedness, which could further exacerbate the risks associated with our substantial indebtedness.

Risks Related to Accounting and Taxation

- Failure to maintain proper and effective internal controls could have a material adverse effect on our business.
- Changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and affect our reported results of operations.
- The application of, or changes in, tax laws or regulations may increase our tax obligations and negatively affect our financial performance.

Risks Related to Ownership of Our Common Stock

- The trading price of our common stock has been and may continue to be volatile, which could cause the value of your investment to decline.
- The requirements of being a public company may strain our resources, increase our costs and distract management.

Risks Related to Our Organizational Structure

- Our charter and bylaws contain anti-takeover provisions that could delay or discourage takeover attempts.
- The Lead Sponsors have a controlling influence over matters requiring stockholder approval, which could delay or prevent a change of control.

Risks Related to Our Technology, Cybersecurity and the Cyber Incident

Cyberattacks, including the Cyber Incident, and other security incidents have resulted, and in the future may result, in compromises or breaches of our and our customers' systems, the insertion of malicious code, malware, ransomware or other vulnerabilities into our systems and products and in our customers' systems, the exploitation of vulnerabilities in our and our customers' environments, theft or misappropriation of our and our customers' proprietary and confidential information, interference with our and our customers' operations, exposure to legal and other liabilities, higher customer, employee and partner attrition, negative impacts to our sales, renewals and upgrades and reputational harm and other serious negative consequences, any or all of which could materially harm our business.

We are heavily dependent on our technology infrastructure to operate our business, and our customers rely on our products to help manage and secure their own IT infrastructure and environments, including their and their customers' confidential information. Despite our implementation of security measures and controls, our systems and those of third parties upon whom we rely are vulnerable to attack from numerous threat actors, including sophisticated nation-state and nation-state-supported actors (including advanced persistent threat intrusions), as well as events that may arise from human error, fraud or malice on the part of employees, contractors or other third parties as well as other insider threats. In addition, as artificial intelligence ("AI") capabilities improve and are increasingly adopted, we may see cyberattacks created through AI or leveraging AI technology. These attacks could be crafted with an AI tool to directly attack information systems with increased speed and/or efficiency than a human threat actor or create more effective phishing emails. Threat actors have been, and may in the future be, able to compromise our security measures or otherwise exploit vulnerabilities in our IT systems or products, including vulnerabilities that may arise from, or have been introduced through, the actions, inactions or errors of our employees or contractors or defects in the design or manufacture of our products and systems or the products and systems that we procure from third parties. In addition, our legacy products have been and may in the future be more vulnerable to compromise. Vulnerabilities may also arise from, or be introduced through our or our customers and partners incorporating the output of an AI tool that includes a threat, such as introducing malicious code by incorporating AI-generated source code. As a result, threat actors have been, and may in the future be, able to breach or compromise our IT systems, including those which we use to design, develop, deploy and support our products, and access and misappropriate our, our current or former employees' and our customers' proprietary and confidential information, including our software source code, introduce malware, ransomware or vulnerabilities into our products and systems and create system disruptions or shutdowns. In addition, our customers have in the past and may in the future incorrectly configure our software, which has resulted in and may in the future result in loss or a breach of business data or other security incidents. We also rely on third-party and open source software that has in the past and may in the future contain bugs, vulnerabilities, or errors that have been or in the future could be exploited or disclosed before a patch or fix is available. By virtue of the role our products play in helping to manage and secure the environments and systems of our customers, attacks on our systems and products can result in similar impacts on our customers' systems and data.

Moreover, the number and scale of cyberattacks have continued to increase and the methods and techniques used by threat actors, including sophisticated "supply-chain" attacks such as the Cyber Incident, malware, ransomware, viruses, denial of service attacks, insider threats and phishing and social engineering attacks, continue to evolve at a rapid pace. In particular, 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 solutions and networks or the systems and networks of third parties that support us and our solutions. As a result, we may be unable to identify current attacks, anticipate these attacks or implement adequate security measures. We have experienced, and may in the future experience, security breaches that may remain undetected for an extended period and, therefore, have a greater impact on our systems, our products, the proprietary data contained therein, our customers and ultimately, our business. In addition, our ability to defend against and mitigate cyberattacks depends in part on prioritization decisions that we and third parties upon whom we rely make to address vulnerabilities and security defects. While we endeavor to address identified vulnerabilities in our products, we and such third parties must make determinations as to how we prioritize developing and deploying the respective fixes, which can delay, limit or prevent development or deployment of a mitigation and harm our reputation. We have and continue to expend significant financial and development resources to address and eliminate vulnerabilities. Likewise, even once a vulnerability has been addressed, for certain of our products, the fix will only be effective once a customer has updated the impacted product with the latest release, and customers that do not install and run the latest supported versions of our products may remain vulnerable to attack. Additionally, we use third-party service providers to provide some services to us that involve the cloud hosting, storage or transmission of data, such as SaaS, cloud computing, and internet infrastructure and bandwidth, and they could experience operational outages, or various cybersecurity threats, suffer cybersecurity incidents, or other security breaches, which would adversely impact our business.

Cyberattacks, including the Cyber Incident, and other security incidents such as phishing schemes, have resulted, and in the future may result, in numerous risks and adverse consequences to our business, including that:

- our prevention, mitigation and remediation efforts may not be successful or sufficient;
- our confidential and proprietary information, including our source code, as well as information that related to current or former employees and customers may be accessed, exfiltrated, misappropriated, compromised or corrupted;
- we incur significant financial, legal, reputational and other harms to our business, including loss of business, decreased sales, severe reputational damage adversely affecting current and prospective customer, employee or vendor relations and investor confidence, U.S. or foreign regulatory investigations and enforcement actions, litigation, indemnity obligations, damages for contractual breach, penalties for violation of applicable laws or regulations, including laws and regulations in the United States and other jurisdictions relating to the collection, use and security of user and other personally identifiable information and data, significant costs for remediation, impairment of our ability to protect our intellectual property, stock price volatility and other significant liabilities;
- our insurance coverage, including coverage relating to certain security and privacy damages and claim expenses, may not be available or sufficient to compensate for all liabilities we incur related to these matters or that we may face increased costs to obtain and maintain insurance in the future; and
- our steps to secure our internal environment, adapt and enhance our software development and build environments and ensure the security and integrity of the products that we deliver to customers may not be successful or sufficient to protect against future threat actors or cyberattacks.

We have incurred and expect to continue to incur significant expenses related to our cybersecurity initiatives.

As a result of the Cyber Incident, we are subject to pending litigation with the SEC, which has and may continue to result in additional costs and expenses, the diversion of management's attention, unfavorable publicity and a negative impact on employee morale, and in the future could result in significant penalties, an adverse effect on our business, reputation, financial condition, results of operations and/or stock price, as well as a bar against our Chief Information Security Officer from serving as an officer or director of a publicly traded company.

On October 30, 2023, in connection with the previously disclosed SEC investigation related to the Cyber Incident, the SEC filed a civil complaint (the "SEC Complaint") naming the Company and our Chief Information Security Officer ("CISO") as defendants (the "Defendants"). The SEC Complaint alleges violations of certain provisions of the Securities Act and the Exchange Act by the Company and our CISO, and seeks, among other things, permanent injunctions from engaging in future violations of provisions of the federal securities laws at issue in the SEC Complaint, disgorgement of profits, civil penalties against the Defendants and an officer-and-director bar against our CISO.

The Company disputes the allegations made in the SEC Complaint and intends to defend itself in this matter. However, although the impact of the SEC Complaint, including the costs, timing, results and other potential consequences thereof, are unknown at this time, the filing of the SEC Complaint, any resulting litigation and/or an adverse resolution of the SEC Complaint could have a material impact on our reputation, business, financial condition, results of operation, cash flow, stock price, ability to obtain financing and/or the ability to attract or retain key employees.

Furthermore, regardless of the outcome of the SEC Complaint, the investigation by the SEC and resulting complaint itself has resulted, and will continue to result, in substantial costs, use of resources and diversion of the attention of management and other employees, which could adversely affect our business. Furthermore, publicity surrounding the SEC Complaint could have an adverse impact on our reputation, business, financial condition, results of operations or cash flows. We have incurred and will continue to incur legal and other expenses in connection with this matter and anticipate that we will be required to indemnify certain current and former officers with respect thereto. Moreover, we have exhausted our coverage limits under our applicable insurance policies and will therefore be required to cover such costs without insurance reimbursement.

Although we have resolved the other lawsuits in the U.S. related to the Cyber Incident to which we were a party, additional claims may be asserted by or on behalf of other government agencies, customers, stockholders or others seeking monetary damages or other relief. Any such lawsuits could result in the incurrence of additional significant costs and expenses, further diversion of management's attention from the operation of our business and a negative impact on employee morale. The pendency or resolution, including any unfavorable outcome, of any such lawsuits, may result in additional costs and other liabilities, including providing indemnity to our officers and directors, and may have an adverse impact on our business, financial condition and results of operations.

Interruptions or performance problems associated with our internal infrastructure, and its reliance on technologies from third parties, may adversely affect our ability to manage our business and meet reporting obligations.

Currently, we use NetSuite to manage our order management and financial processes, salesforce.com to track our sales and marketing efforts and other third-party vendors to manage online marketing and web services. In addition, we rely on third-party cloud providers, including Microsoft Azure, to provide hosting services for certain business applications and services. We believe the availability of these services is essential to the management of our high-volume, transaction-oriented business model. We also use third-party vendors to manage our equity compensation plans, certain aspects of our financial reporting processes, human resource management systems and payroll processing, among others. We expect to continue to utilize additional systems and service providers that may also be essential to managing our business, and our business may suffer if we are unsuccessful in identifying high-quality service providers, negotiating cost-effective relationships with them or effectively managing these relationships. Although the systems and services that we require are typically available from a number of providers, it is time-consuming and costly to qualify and implement these relationships. Therefore, if one or more of our providers suffer an interruption in their business, experience delays, disruptions or quality-control problems in their operations, experience difficulty meeting our requirements or standards, or we have to otherwise change or add additional systems and services, our ability to manage our business and our finances could be interrupted, receipt of payments from customers may be delayed, our processes for managing sales of our offerings could be impaired, our ability to generate and manage sales leads could be weakened, or our business operations could be disrupted. Any disruptions to our business as a result of our dependence on such third-party relationships may adversely affect our financial condition, results of operations or cash flows until we replace such providers or develop replacement technology or operations.

Interruptions or performance problems associated with our products, including disruptions at any third-party data centers or public cloud providers upon which we rely, may impair our ability to support our customers.

Our continued growth, including with respect to our transition to a subscription-first approach, depends in part on the ability of our existing and potential customers to access our websites, software or cloud-based products within an acceptable amount of time. In some cases, third-party cloud providers run their own platforms that we access to host our subscription solutions, and we are, therefore, vulnerable to their service interruptions. We have experienced, and may in the future experience, service disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors, capacity constraints due to an overwhelming number of users accessing our website simultaneously and denial of service or fraud or security attacks. In some instances, we may not be able to identify the cause or causes of these website performance problems within an acceptable period of time. It may become increasingly difficult to maintain and improve our website performance and the performance of our cloud-based solutions hosted on third-party cloud-based infrastructure, especially during peak usage times and as our cloud capabilities become more complex and our user traffic increases. If our websites are unavailable or if our customers are unable to access our software or cloud-based products within a reasonable amount of time or at all, our business would be negatively affected. Additionally, our data centers, networks and third-party data centers and networks may experience technical failures and downtime, may fail to distribute appropriate updates, or may fail to meet the increased requirements of a growing customer base. In addition, similar to other organizations with cloud-based products, we have standing agreements with our vendors to offer services during a specific period of time and for a specific minimum amount. If our commitment levels drop below our contractual obligations, we may be required to pay penalties which could impact our future cash flows.

We provide certain of our application performance management and service desk products through third-party data center hosting facilities and cloud providers located in the United States and other countries. While we control the code and applications, we do not have direct control over the underlying infrastructure components and consume infrastructure as a service from both data center and cloud service providers of these facilities. If any of the services provided by the third-party data center hosting facilities or cloud providers fails or becomes unavailable due to extended outages, damage or interruptions, including performance problems from earthquakes, hurricanes, floods, fires, power loss, telecommunications failures, equipment failures or cybersecurity attacks, or because they are no longer available on commercially reasonable terms or prices, our revenues could be reduced, our reputation could be damaged, we could be exposed to legal liability, expenses could increase, and our processes for managing sales of our solutions and supporting our customers could be impaired until equivalent services, if available, are identified, obtained and implemented, all of which could adversely affect our business and financial results. In addition, following expiration of the current agreement terms, the owners of the data center facilities and cloud providers have no obligation to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew these agreements on commercially reasonable terms, or if one of our data center operators is acquired, we may be required to transfer our servers and other infrastructure to new data center facilities, and we may incur significant costs and possible service interruptions in connection with doing so. In addition, if we need to add new data center facilities or cloud providers to increase capacity, we could experience interruptions, downtime, delays, and additional expenses related to transferring to and providing support for these new platforms.

The Cyber Incident has had and may continue to have an adverse effect on our business, reputation, customer, employee and partner relations, results of operations, financial condition and cash flows.

The Cyber Incident has harmed, and may continue to harm, our reputation and brand positioning, our customer, employee and partner relations and our operations and business as a result of both the impact it has had on our relationships with existing and prospective customers and the significant time and resources that our personnel have had to devote to responding to the Cyber Incident. Customers have and may in the future defer purchasing or choose to cancel or not renew their agreements or subscriptions with us as a result of the Cyber Incident.

We have expended significant costs and expenses related to the Cyber Incident, including in connection with our investigations and our compliance with applicable laws and regulations in connection with any access to and exfiltration of information related to our current or former employees and customers, and we have expended significant costs in connection with our remediation efforts and our measures to address the damage to our reputation, customer, employee and partner relations and we have and expect to continue to expend significant costs in connection with our Secure by Design and related initiatives. If we are unable to rebuild the trust of our current and prospective customers and partners, negative publicity continues and/or our personnel continue to have to devote significant time to the Cyber Incident, our business, market share, results of operations and financial condition will be negatively affected.

As discussed above, we are party to lawsuits and the subject of governmental investigations related to the Cyber Incident. In addition, as a result of the Cyber Incident and market forces beyond our control, the cost of our cybersecurity insurance has increased, and may in the future continue to increase, and we may not be able to obtain additional or comparable insurance coverage on commercially reasonable terms. In addition, as described above, the SEC has filed a civil complaint, and other governmental authorities investigating the Cyber Incident may seek to impose undertakings, injunctive relief, consent decrees, or other civil or criminal penalties, which could, among other things, materially increase our software development and related expenses or otherwise require us to alter how we operate our business.

While we have concluded our internal investigations relating to the Cyber Incident, the discovery of new or different information regarding the Cyber Incident, including with respect to its scope and impact on our systems, products or customers, could increase our costs and liabilities related to the Cyber Incident and result in further damage to our business, reputation, intellectual property, results of operations and financial condition. In addition, the Cyber Incident has emboldened and in the future may continue to embolden other threat actors to further target our systems, which could result in additional harm to our business, reputation, intellectual property, results of operations and financial conditions. Although we have deployed and expect to continue to deploy significant resources as part of our Secure by Design plan, we cannot ensure that our steps to secure our internal environment, improve our software development and build environments and protect the security and integrity of the products that we deliver will be successful or sufficient to protect against future threat actors or cyberattacks or perceived by existing and prospective customers as sufficient to address the harm caused by the Cyber Incident.

Risks Related to Our Business and Industry

Our quarterly revenue and operating results may fluctuate from time to time because of a number of factors, which makes our periodic results difficult to predict and could cause our operating results to fall below expectations or the guidance we may provide.

We believe our quarterly revenue and operating results may vary significantly from time to time. As a result, you should not rely on the results of any one quarter as an indication of future performance and period-to-period comparisons of our revenue and operating results may not be meaningful.

Our quarterly results of operations may fluctuate as a result of a variety of factors, including, but not limited to, those listed below, many of which are outside of our control:

- our ability to maintain and increase sales to existing customers and to attract new customers;
- our ability to convert our maintenance customers to subscription products;
- changes in the timing of our revenue recognition and revenue growth as a result of conversions from maintenance to subscription;
- decline or delay in maintenance or subscription renewals, particularly with respect to our time-based subscription offerings;
- our ability to capture a significant volume of qualified sales leads;
- our ability to convert qualified sales leads into new business sales at acceptable conversion rates;
- the success of our increased selling efforts toward enterprise customers;
- the success of increased investments in our transformation from monitoring to observability;
- the amount and timing of operating expenses and capital expenditures related to the expansion of our operations and infrastructure, including third-party hosting costs, and customer acquisition;
- our ability to increase and manage the growth of our international operations, including our international sales force, and our ability to manage the risks associated therewith, including increased turnover rates;
- fluctuations in foreign currency exchange rates that may negatively impact our reported results of operations;
- occasional large customer orders, including in particular those placed by the U.S. federal government;
- unpredictability and timing of buying decisions by the U.S. federal government, including, if one were to occur, any impact on buying decisions and timing resulting from any government shutdown;
- our ability to work with our partners to attract new customers or expand our existing customer base;
- our failure to achieve the growth rate that was anticipated by us in setting our operating and capital expense budgets;
- potential foreign exchange gains and losses related to expenses and sales denominated in currencies other than the functional currency of an associated entity;
- the timing of revenue and expenses related to the development or acquisition of technologies, products or businesses;
- potential goodwill and intangible asset impairment charges and amortization associated with acquired businesses;
- changes in the manner of use of our long-lived assets, including finite-lived intangible assets, operating lease assets and capitalized software development assets;

- the timing and success of new products, enhancements or functionalities introduced by us or our competitors;
- our ability to obtain, maintain, protect and enforce our intellectual property rights;
- changes in our pricing or licensing model or those of our competitors;
- the impact of new accounting pronouncements or changes in tax laws;
- general economic, industry and market conditions that impact expenditures for enterprise IT management software in the United States and other countries where we sell our software;
- significant cybersecurity breaches, technical difficulties or interruptions to our products;
- changes in tax rates in jurisdictions in which we operate;
- fluctuations in interest rates; and
- continued uncertainties in the market and our business operations as a result of global macroeconomic conditions.

Fluctuations in our quarterly operating results might lead analysts to change their models for valuing our common stock. As a result, our stock price could decline rapidly, and we could face costly securities class action suits or other unanticipated issues.

If we are unable to capture significant volumes of high-quality sales leads from our digital marketing initiatives, account-based marketing and our outbound sales motion, it could adversely affect our revenue growth and operating results.

Our digital marketing program is designed to drive a high volume of website traffic and deliver high-quality leads, which are often trials of our products, to our sales teams efficiently and cost-effectively. We drive website traffic and capture leads through various digital marketing initiatives, including search engine optimization, or SEO, paid media placement, targeted email campaigns, localized websites, social media, e-book distribution, video content, blogging and webcasts. In addition, we have added programs and technologies to support an account-based marketing motion as we seek to capture more expansion opportunities within our large customer base and better visibility within key enterprise accounts. If we fail to drive a sufficient amount of website traffic or capture a sufficient volume of high-quality sales leads from these activities, our revenue may not grow as expected or could decrease. If we devote additional resources to our selling efforts toward enterprise customers at the expense of our digital marketing program, the success of our traditional sales approach may be negatively impacted. In addition, if either our customer success efforts or the efforts of our channel partners fail to generate sufficient sales leads, our revenue may not grow as expected. If these activities are unsuccessful, we may be required to increase our sales and marketing expenses, which may not be offset by additional revenue, and could adversely affect our operating results.

Our increased investments in account-based marketing may divert our sales teams' attention and may not be successful in obtaining large enterprise customers despite the resources we devote to it. In addition, our digital marketing initiatives may be unsuccessful in driving high volumes of website traffic and generating trials of our products, resulting in fewer high-quality sales leads, for a number of reasons. For example, technology professionals and leaders often find our products when they are online searching for a solution to address a specific need. Search engines typically provide two types of search results, algorithmic and purchased listings, and we rely on both. The display, including rankings, of unpaid search results can be affected by a number of factors, many of which are not in our direct control and may change frequently. Our SEO techniques have been developed to work with existing search algorithms used by the major search engines. However, major search engines frequently modify their search algorithms, and such modifications could cause our websites to receive less favorable placements, which could reduce the number of technology professionals who visit our websites. In addition, websites must comply with search engine guidelines and policies that are complex and may change at any time. If we fail to follow such guidelines and policies properly, search engines may rank our content lower in search results or could remove our content altogether from their indexes. If our websites are displayed less prominently or fail to appear in search result listings in response to search inquiries regarding observability, IT monitoring and management, database performance management or service management problems through Internet search engines for any reason, our website traffic could significantly decline, requiring us to incur increased marketing expenses to replace this traffic. Any failure to replace this traffic could reduce our revenue.

In addition, the success of our digital marketing initiatives depends in part on our ability to collect customer data and communicate with existing and potential customers online and through phone calls. As part of the product evaluation trial process and during our sales process, most of our customers agree to receive emails and other communications from us. We also use tracking technologies, including cookies and related technologies, to help us track the activities of the visitors to our websites. However, as discussed in greater detail below, we are subject to a wide variety of data privacy and security laws and regulations in the U.S. and internationally that affect our ability to collect and use customer data and communicate with customers through email and phone calls. Many jurisdictions have proposed or adopted laws that restrict or prohibit unsolicited email or “spam” or regulate the use of cookies, including the European Union’s General Data Protection Regulation and ePrivacy Directive. These new laws and regulations may impose significant monetary penalties for violations and complex and often burdensome requirements in connection with sending commercial emails or other data-driven marketing practices. As a result of such regulation, we may be required to modify or discontinue our existing marketing practices, which could increase our marketing costs.

If we are unable to sell products to new customers or to sell additional products or upgrades to our existing customers, it could adversely affect our revenue growth and operating results.

To increase our revenue, we must regularly add new customers, including new customers within existing client organizations, and sell additional products or upgrades, including conversions to our subscription products, to existing customers. Even if we capture a significant volume of leads from our digital marketing activities, we must be able to convert those leads into sales of our products in order to achieve revenue growth.

We primarily rely on our direct sales force to sell our products to new and existing customers and convert qualified leads into sales using our high-velocity "selling from the inside" sales model, which we augment with a targeted, high-touch enterprise sales team and Customer Success motion. Accordingly, our ability to achieve significant growth in revenue in the future will depend on our ability to recruit, train and retain sufficient numbers of sales personnel, and on the productivity of those personnel. We plan to continue to expand our sales force both domestically and internationally. Our recent and planned personnel additions may not become as productive as we would like or in a timely manner, and we may be unable to hire or retain sufficient numbers of qualified individuals in the future in the markets where we do or plan to do business. In addition, as we augment our sales model and our solutions expand, additional training for new hires and our existing personnel may be required to successfully execute those strategies. If we are unable to sell products to new customers and additional products or upgrades to our existing customers through our direct sales force or through our channel partners, which supplement our direct sales force by distributing our products and generating sales opportunities, we may be unable to grow our revenue and our operating results could be adversely affected.

If we fail to successfully manage the evolution of our solutions, our financial results could be negatively impacted.

We currently derive our revenue from a combination of subscription revenue from the sale of observability, application performance management and service desk products, and license and maintenance revenue from the sale of our on-premises network, systems, storage and database management perpetual license products. As we continue our evolution from monitoring to observability and our subscription-first approach, our revenue mix has shifted, and we expect it to continue to shift, to a greater percentage of subscription revenue, resulting in variation in the timing of how and when we recognize revenue. This shift to a subscription model depends on customer choice, and we may not be successful in converting our customers from perpetual licenses to subscription licenses which may lead to customer attrition or slower revenue growth. In addition, as a part of this shift, we continue to make changes to how we build and deliver our technology, including changes in our business models with customers. If our strategy for addressing our customer needs, or the architectures and solutions we develop do not meet those needs, or the changes we are making in how we build and deliver our technology are ineffective, our business could be harmed. Whether our solutions transformation will prove successful and will accomplish our business and financial objectives is subject to numerous uncertainties, including but not limited to: customer demand, customer acceptance of our subscription products, renewal and expansion rates, our ability to further develop and scale our cloud-based infrastructure, our pricing and our costs. If we do not successfully execute this transition, our business and future operating results could be adversely affected.

Our business depends on customers renewing their maintenance or subscription agreements. Any decline in renewal or net retention rates could harm our future operating results.

The significant majority of our revenue is recurring and consists of maintenance revenue and subscription revenue. Our perpetual license products typically include the first year of maintenance as part of the initial price. Our subscription products generally have recurring monthly or annual subscription periods. Our customers have no obligation to renew their maintenance or subscription agreements after the expiration of the initial period. Because of the timing of our subscription revenue recognition, any delays in renewals of our subscription products could have a greater impact in the quarter that the renewal is due.

It is difficult to accurately predict long-term customer retention. Our customers' maintenance renewal rates and subscription net retention rates may decline or fluctuate as a result of a number of factors, such as our customers' level of satisfaction with our products and services, the prices of our products, the prices of products and services offered by our competitors, how our products are subjectively evaluated in industry analyst assessments, reductions in our customers' spending levels or customer perceptions of the Cyber Incident. If our customers do not renew their maintenance or subscription arrangements or if they renew them on less favorable terms, our revenue may decline, and our business will suffer. A substantial portion of our quarterly maintenance and subscription revenue is attributable to agreements entered into during previous quarters. As a result, if there is a decline in renewed maintenance or subscription agreements in any one quarter, only a small portion of the decline will be reflected in our revenue recognized in that quarter and the rest will be reflected in our revenue recognized in the following four quarters or more.

Because our long-term success depends on our ability to operate our business internationally and increase sales of our products to customers located outside of the United States, our business has been and continues to be susceptible to risks associated with international operations and global macroeconomic conditions.

We have international operations in the Republic of Ireland, the United Kingdom, Canada, the Czech Republic, Poland, Germany, France, India, Sweden, Israel, Australia, Japan, South Korea, Turkey, Singapore, the Philippines and the United Arab Emirates and we market and sell our products worldwide. We expect to continue to expand our international operations for the foreseeable future. The continued international expansion of our operations requires significant management attention and financial resources and results in increased administrative and compliance costs. Our limited experience in operating our business in certain regions outside the United States increases the risk that our expansion efforts into those regions may not be successful. Our business model may not be successful in particular countries or regions outside the United States for reasons that we currently are unable to anticipate. We are subject to risks associated with international sales and operations including, but not limited to:

- fluctuations in currency exchange rates (which we hedge only to a limited extent at this time);
- dependence on resellers, distributors and other global channel partners to increase customer acquisition or drive localization efforts;
- the complexity of, or changes in, foreign regulatory requirements;
- any violation of legal and regulatory requirements or any misconduct by our international employees or partners;
- reduced or varied protection for intellectual property rights in some countries and the risk of potential theft or compromise of our technology, data or intellectual property in connection with our international operations, whether by state-sponsored malfeasance or other foreign entities or individuals;
- difficulties in managing the staffing of international operations, including compliance with local labor and employment laws and regulations;
- potentially adverse tax consequences, including the complexities of foreign value-added tax systems, overlapping tax regimes, restrictions on the repatriation of earnings and changes in tax rates;
- the burdens of complying with a wide variety of foreign laws and different legal standards;
- increased financial accounting and reporting burdens and complexities;
- longer payment cycles and difficulties in collecting accounts receivable;
- longer sales cycles;
- political, social and economic instability;
- war, terrorist attacks and security concerns in general;
- laws and policies of the U.S. and other jurisdictions affecting international trade (including import and export control laws, tariffs and trade barriers);
- the risk of U.S. regulation of foreign operations; and
- other factors beyond our control such as natural disasters and pandemics.

The occurrence of any one of these risks could negatively affect our international business and, consequently, our operating results. We cannot be certain that the investment and additional resources required to establish, acquire or integrate operations in other countries will produce the desired levels of revenue or profitability. If we are unable to effectively manage our expansion into additional geographic markets, our financial condition and results of operations could be harmed.

In particular, we operate much of our research and development activities internationally and outsource a portion of the coding and testing of our products and product enhancements to contract development vendors. We believe that performing research and development in our international facilities and supplementing these activities with our contract development vendors enhances the efficiency and cost-effectiveness of our product development. Unrest in certain countries may pose security risks to our people, our facilities, our systems, our operations and local infrastructure, such as utilities and network services, and the disruption of any or all of them could materially adversely affect our operations and/or financial results. In particular, we outsource to contract development vendors located in Ukraine and we also have operations, including research and development personnel, located in Israel. Although we do not expect the wars in Ukraine or Israel to have a material impact on us given our operations in Ukraine and Israel do not currently constitute a material portion of our development operations or our revenue, the conflicts have and may continue to increase our costs, disrupt or delay current or future planned development activities in Ukraine and Israel or force us to shift development efforts to resources in other geographies that may not possess the same level of cost efficiencies. Whether in these countries or in others in which we operate, civil unrest, political instability or uncertainty, military activities, or broad-based sanctions, should they continue for the long term or escalate, could require us to re-balance our geographic concentrations and could have an adverse effect on our operations and financial performance, including through increased costs of compliance, restrictions on our ability to sell into specific regions, higher volatility in foreign currency exchange rates, increased use of less cost-efficient resources and negative impacts to our business resulting from deteriorating general economic conditions and adverse impacts to the operations and financial condition of our suppliers, partners and customers.

If one or more of these risks occur, it could require us to dedicate significant resources to remedy, and if we are unsuccessful in finding a solution, our financial results could suffer.

We operate in highly competitive markets, which could make it difficult for us to acquire and retain customers at historic rates.

We operate in a highly competitive, fragmented and evolving industry. Competition in our market is based primarily on brand awareness and reputation; product capabilities, including scalability, performance, security and reliability; ability to solve problems for companies of all sizes and infrastructure complexities; ease of use; total cost of ownership; flexible deployment models, including on-premises, in the cloud or in a hybrid environment; strength of sales and marketing efforts; and focus on customer service. We often compete to sell our products against existing products or systems that our potential customers have already made significant expenditures to install. Many of our current and potential competitors enjoy substantial competitive advantages over us, such as greater brand awareness and substantially greater financial, technical and other resources. In addition, many of our competitors have established marketing relationships and access to larger customer bases, and have major distribution agreements with consultants, system integrators and resellers. Given their larger size, greater resources and existing customer relationships, our competitors may be able to compete and respond more effectively than we can to new or changing opportunities, technologies, standards or customer and end-user requirements.

We face competition from IT vendors offering enterprise-wide software frameworks and services and companies in the observability, network, servers, storage, database, cloud and application performance monitoring markets. We also compete with IT equipment vendors and IT operations management product providers, as well as infrastructure providers and their native applications, whose products and services also address observability and IT management requirements for networks, applications, servers, storage, databases and digital experiences. Our principal and potential competitors vary depending on the product we offer and have included and may include large network management and IT vendors such as Cisco Systems, Micro Focus, IBM and BMC Software, companies in the cloud and application performance monitoring market, including Datadog, Dynatrace and New Relic, IT service management vendors such as Atlassian, Freshworks and ServiceNow and database management vendors such as Quest and Redgate.

Some of our competitors have made acquisitions or entered into strategic relationships with one another to offer more comprehensive, bundled or integrated product offerings. We expect this trend to continue as companies attempt to strengthen or maintain their market positions in an evolving industry and as companies enter into partnerships or are acquired. Companies and alliances resulting from these possible consolidations and partnerships may create more compelling product offerings and be able to offer more attractive pricing, making it more difficult for us to compete effectively.

The ability to recruit, retain and develop key employees and management personnel is critical to our success and growth, and our inability to attract and retain qualified personnel could harm our business.

Our business requires certain expertise and intellectual capital, particularly within our management team. We rely on our management team in the areas of operations, security, marketing, sales, research and development, support and general and administrative functions. The loss of one or more of our management team could have an adverse effect on our business. In recent years, we have made significant changes, and may make additional changes in the future, to our senior management team and other key personnel. Leadership transitions can be inherently difficult to manage, and an inadequate transition may cause disruption to our business. In addition, we cannot provide assurances that key personnel, including our executive officers, will continue to be employed by us or that we will be able to attract and retain qualified personnel in the future.

For us to compete successfully and grow, we must retain, recruit and develop key personnel who can provide the needed expertise for our industry and products. We have experienced significant attrition in recent years, including of those with significant institutional knowledge and expertise, which has and may continue to negatively impact productivity. In addition, as we move into new geographic areas, we will need to attract, recruit and retain qualified personnel in those locations. The market for qualified personnel is competitive and we may not succeed in retaining and recruiting key personnel or may fail to effectively replace current key personnel who depart with qualified or effective successors. We believe that replacing our key personnel with qualified successors is particularly challenging given that our evolving business model and approach to marketing and selling our products are unique, as well as uncertain global macroeconomic conditions. Any successors that we hire from outside of the company would likely be unfamiliar with our business model and may therefore require significant time to understand and appreciate the important aspects of our business or fail to do so altogether, or we may lose new employees to our competitors or other technology companies before we realize the benefit of our investment in recruiting and training them. Other factors that may affect our ability to attract and retain talented employees include our compensation and benefits programs, opportunities for advancement, flexible working conditions and our reputation. Our effort to retain and develop personnel has and may continue to result in significant additional resources and costs, including stock-based compensation expenses, which could adversely affect our profitability. Additionally, we may periodically implement business strategies that impact our employees, including changes to our organizational structure or workforce restructurings. Changes in business strategies or workforce restructurings could have an adverse effect on our business, including creating negative employee morale and hindering our ability to meet operational targets.

New regulations and volatility or lack of performance in our stock price could also affect the value of our equity awards, which could affect our ability to attract and retain our key employees. In addition, our current and future flexible work policies may not meet the expectations of our employees or prospective employees. Further, we may be unsuccessful in retaining key personnel of businesses we acquire. Failure to retain or attract key personnel, or if we need to continue to increase our compensation expenses to retain our key personnel, could have an adverse effect on our business, results of operations, financial condition and cash flows.

We have experienced changes in our growth in recent years, and if we fail to manage such changes effectively, we may be unable to execute our business plan, maintain high levels of customer satisfaction or adequately address competitive challenges, and our financial performance may be adversely affected.

Our business model has evolved in recent years, which has resulted in increases in our number of employees internationally, expansion of our infrastructure, new internal systems and other significant changes and additional complexities. While we intend to further expand our overall business, customer base, and number of employees in selected regions, our historical growth rate is not necessarily indicative of the growth that we may achieve in the future. The changes in our business generally and our management of a growing workforce and customer base geographically dispersed across the U.S. and internationally will require substantial management effort, infrastructure and operational capabilities. To support our business evolution, we must continue to improve our management resources and our operational and financial controls and systems, and these improvements may increase our expenses more than anticipated and result in a more complex business. We will also have to anticipate the necessary expansion of our relationship management, implementation, customer service and other personnel to support our growth and achieve high levels of customer service and satisfaction. Our success will depend on our ability to plan for and manage these changes effectively. If we fail to anticipate and manage our business evolution or are unable to provide high levels of customer service, our reputation, as well as our business, results of operations and financial condition, could be harmed.

Our actual operating results may differ significantly from information we may provide in the future regarding our financial outlook.

From time to time, we provide information regarding our financial outlook and business expectations in our quarterly earnings releases, quarterly earnings conference calls, investor conferences, analyst days or otherwise, that represents our management's estimates as of the date of release. When provided, this information regarding our financial outlook, which includes forward-looking statements, will be based on projections prepared by our management. Neither our independent registered public accounting firm nor any other independent expert or outside party will compile or examine the projections nor, accordingly, will any such person express any opinion or any other form of assurance with respect thereto.

These projections will be based upon a number of assumptions and estimates that, while presented with numerical specificity, will be inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which will be beyond our control, and will also be based upon specific assumptions with respect to future business decisions, some of which will change. We typically state possible outcomes as high and low ranges, which are intended to provide a sensitivity analysis as variables are changed, but will not be intended to represent that actual results could not fall outside of the suggested ranges. The principal reason that we release such information is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by analysts.

Information regarding our financial outlook is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying such information furnished by us will not materialize or will vary significantly from actual results. Accordingly, information that we may provide regarding our financial outlook will only be an estimate of what management believes is realizable as of the date of release. Actual results will vary from our financial outlook, and the variations may be material and adverse. In light of the foregoing, investors are urged to consider these factors, not to rely exclusively upon information we may provide regarding our financial outlook in making an investment decision regarding our common stock, and to take such information into consideration only in conjunction with other information included in our filings filed with or furnished to the SEC, including the "*Risk Factors*" sections in such filings.

Any failure to implement our operating strategy successfully or the occurrence of any of the events or circumstances set forth under "*Risk Factors*" in this Annual Report on Form 10-K could result in our actual operating results being different from information we provide regarding our financial outlook, and those differences might be adverse and material.

We depend on the U.S. federal government in certain calendar quarters for a meaningful portion of our on-premises license sales, including maintenance renewals associated with such products, as well as our time-based subscription offerings, and orders from the U.S. federal government are often unpredictable and subject to certain challenges. The delay, disruption or loss of these sales may harm our operating results.

A portion of our on-premises license sales, including maintenance renewals associated with such products, as well as sales of our time-based subscription offerings, are to a number of different departments of the U.S. federal government. In certain calendar quarters, particularly the first and third calendar quarters, this portion may be meaningful. Any factors that cause a decline, delay or disruption in government expenditures generally or government IT expenditures in particular could cause our revenue to grow less rapidly or even to decline. Following the Cyber Incident, our government contracts have received enhanced scrutiny and negative media attention. If we are unable to secure the data we maintain, our ability to maintain our existing and acquire new government contracts may be substantially impacted. Other challenges include, but are not limited to, constraints on the budgetary process, including changes in the policies and priorities of the U.S. federal government, continuing resolutions, adherence to government audit and certification requirements such as FedRAMP, OMB Memo 22-18 and the NIST Secure Software Development Framework, debt ceiling disruptions, deficit-reduction legislation, and any shutdown or default of the U.S. federal government. Furthermore, sales orders from the U.S. federal government tend to be dependent on many factors and thus the timing of the procurement process can be unpredictable. Any sales we expect to make in a quarter may not be made in that quarter or at all, and our operating results for that quarter may therefore be adversely affected.

Our operating margins and cash flows from operations could fluctuate as we make further expenditures to expand our product offerings and sales motion and continue our increased investments in our Secure by Design initiatives and our Customer Success motion.

We have made significant investments in our operations to support additional growth and expand our business, such as hiring new personnel, establishing and broadening our international operations and investing in our research and development as we evolve our solutions from monitoring to observability and continue our subscription-first approach. We have made substantial investments in recent years to broaden our subscription offerings as well as increase our sales and marketing operations in the EMEA and APJ regions, and we expect to make selected investments in the future to grow our international sales and global brand awareness. In addition, we have made increased investments in our Customer Success motion to support and retain our customers as we adopt a subscription-first approach. We have invested and expect to continue to invest to grow our research and development organization, in particular as part of our evolution of our solutions from monitoring to observability as well as our ongoing initiatives related to our "Secure by Design" framework. All of these investments may not yield increased revenue, and even if they do, the increased revenue may not offset the amount of the investments, including third-party hosting costs. We may also continue to pursue acquisitions in order to expand our presence in current markets or new markets, many or all of which may increase our operating costs more than our revenue. As a result of any of these factors, our operating income could fluctuate and may continue to decline as a percentage of revenue relative to our prior annual periods.

Our success depends on our ability to maintain a product portfolio that responds to the needs of technology professionals and leaders and the evolving observability, IT management and service management markets.

Our product portfolio has grown from on-premises network management products to broad-based on-premises systems monitoring and management products, products for the growing multi-cloud markets and cloud-native SaaS offerings. We offer a broad portfolio of observability, IT management and service management products designed to solve the strategic and day-to-day problems encountered by technology professionals and leaders managing complex IT infrastructure, spanning on-premises, multi-cloud, and hybrid IT environments. We utilize AI and machine learning in some of our products, and we believe this may be a significant enabler for driving value for customers within our product portfolio. Our long-term growth depends on our ability to continually enhance and improve our existing products and develop or acquire new products that address the common problems encountered by technology professionals and leaders on a day-to-day basis in evolving observability, IT management and service management markets. The success of any enhancement or new product depends on a number of factors, including its relevance to our existing and potential customers, timely completion and introduction and market acceptance. As with many developing technologies, AI presents risks and challenges that could affect further development, adoption and use, including flawed algorithms, poor quality, incomplete datasets or biased data practices. If the recommendations, forecasts, or analyses that AI applications assist in producing are deficient or inaccurate, we could be subjected to competitive harm, potential legal liability, and brand or reputational harm. In addition, new products and enhancements, including any AI-based applications, that we develop or acquire may not sufficiently address the evolving needs of our existing and potential customers, may not be introduced in a timely or cost-effective manner, and may not achieve the broad market acceptance necessary to generate the amount of revenue necessary to realize returns on our investments in developing or acquiring such products or enhancements. In addition, if our expanded product portfolio, in particular our cloud-native SaaS offerings, do not garner widespread market adoption, or there is a reduction in demand due to a lack of customer acceptance, technological challenges, weakening economic conditions, security or privacy concerns, competing technologies or decreases in corporate spending, our financial results could suffer. If our new products and enhancements are not successful for any reason, certain products in our portfolio may become obsolete, less marketable and less competitive, and our business will be harmed.

If we are unable to develop and maintain successful relationships with channel partners, our business, results of operations and financial condition could be harmed.

We have established relationships with certain channel partners to distribute our products and generate sales opportunities, particularly internationally. We believe that continued growth in our business is dependent in part upon identifying, developing, and maintaining strategic relationships with our existing and potential channel partners, such as resellers, managed service providers, or MSPs, as well as hyperscalers and general systems integrators and this can drive substantial revenue and provide additional valued-added services to our customers. These partners form an increasingly important element of our go to market motion worldwide, and accordingly any changes to these relationships may have a significant impact on our market strategy. Our agreements with these business partners are non-exclusive, meaning our partners may offer customers the products of several different companies, including products that compete with ours. They may also cease marketing our products with limited or no notice and with little or no penalty. We expect that any additional channel partners we identify and develop will be similarly non-exclusive and not bound by any requirement to continue to market our products. In addition, these strategic relationships may disrupt our direct and indirect sales motions and marketing efforts, lengthen our sales cycles, or create conflict within our sales channels, each of which could negatively impact our business. If we fail to identify appropriate or additional channel partners in a timely and cost-effective manner, or at all, or are unable to assist our current and future channel partners in independently distributing and deploying our products, our business, results of operations and financial condition could be harmed. If our channel partners do not effectively market and sell our products, or fail to meet the needs of our customers, or fail to meet their contractual and/or compliance obligations, our reputation and ability to grow our business may also be harmed. Our channel strategy is evolving and we may be subjected to lawsuits, regulatory scrutiny or investigations, potential liability or reputational harm if a channel partner does not abide by their contractual obligations as a SolarWinds partner or our representatives fail to follow applicable policies.

If we fail to develop and maintain our brands cost-effectively, our financial condition and operating results might suffer.

We believe that developing and maintaining awareness and integrity of our brands in a cost-effective manner are important to achieving widespread acceptance of our existing and future products and are important elements in attracting new customers. We believe that the importance of brand recognition will increase as we enter new markets and as competition in our existing markets further intensifies. Successful promotion of our brands will depend on the effectiveness of our marketing efforts and on our ability to provide reliable, secure, and useful products at competitive prices. Any brand promotion activities may not yield increased revenue, and even if they do, the increased revenue may not offset the expenses we incur in building our brands. We rely on resellers and distributors to some extent in the distribution of our products. We have limited control over these third parties, and actions by these third parties could negatively impact our brand. We also rely on our customer base and community of end users in a variety of ways, including giving us feedback on our products and providing user-based support to our other customers through THWACK, our online community. If poor advice or misinformation regarding our products is spread among users of THWACK, it could adversely affect our reputation, our financial results and our ability to promote and maintain our brands. If we fail to promote and maintain our brands successfully, fail to maintain loyalty among our customers and our end-user community, or incur substantial expenses in an unsuccessful attempt to promote and maintain our brands, we may fail to attract new customers or retain our existing customers and our financial condition and results of operations could be harmed.

Adverse global macroeconomic conditions, including as a result of the wars in Ukraine and Israel, may negatively affect our business.

Recent macroeconomic conditions, including as a result of the wars in Ukraine and Israel, rising escalations in the Middle East, geopolitical tensions involving China and the global COVID pandemic have created significant volatility, uncertainty and disruption in the global economy, while the U.S. capital markets have experienced and continue to experience volatility and disruption. Our business depends on the overall demand for information technology and on the economic health of our current and prospective customers. Any prolonged weakening of the economy in the United States, or other North American, Latin American, or South American countries, EMEA, APJ and of the global economy, increased inflation, rising interest rates, more limited availability of credit, supply chain and energy markets disruptions, a reduction in business confidence and activity, decreased government spending, armed conflicts, international sanctions, and other difficulties may affect one or more of the sectors or countries in which we sell our products. These global macroeconomic conditions have caused and may continue to cause some of our customers or potential customers to curtail spending generally or IT management spending specifically, and may ultimately result in new regulatory and cost challenges to our international operations. In addition, a strong dollar could reduce demand for our products in countries with relatively weaker currencies. These adverse conditions could result in reductions in sales of our products, longer sales cycles, slower adoption of new technologies and increased price competition.

The extent to which the conflicts in Ukraine and Israel, the global COVID pandemic, increased inflation and changes in interest rates may continue to impact our business, results of operations and financial condition is uncertain and will depend on numerous evolving factors outside of our control that we are not able to accurately predict, including: the duration and scope of the conflicts in Ukraine and Israel; governmental actions taken in response to the global COVID pandemic or other public health emergency that restrict or disrupt global economic activity; business failures, reductions in information technology spending, late or missed payments, or delays in purchasing decisions by our customers, their end-customers and our prospective customers, and the resulting impact on demand for our products, our ability to collect payments for our products or our ability to add new customers and retain existing customers; our ability to continue to effectively market, sell and support our products through disruptions to our operations, the operations of our customers and partners and the communities in which our and their employees are located; and risks associated with exposures of our information technology systems to potential cyber interference and disruption of work activities based on availability and performance of internet access in the regions in which our employees reside as a result of certain of our employees being engaged in remote work from their homes.

Any sustained adverse impacts from these and other recent macroeconomic events could have an adverse effect on our business, operating results and financial position.

Adverse developments affecting the financial services industry could have an adverse impact on our business, financial condition or results of operations.

Events involving reduced or limited liquidity, defaults, non-performance or other adverse developments that affect financial institutions or other companies in the financial services industry or the financial services industry generally, have in the past and may in the future lead to market-wide liquidity problems. For example, the closures of Silicon Valley Bank ("SVB") and Signature Bank in March 2023 created bank-specific and broader financial institution liquidity risk and concerns. Although the U.S. government has taken measures to strengthen public confidence in the banking system and protect depositors, such steps may be insufficient to resolve the volatility in the financial markets and reduce the risk of additional bank failures. Future adverse developments with respect to specific financial institutions or the broader financial services industry may lead to market-wide liquidity shortages, impair the ability of companies to access working capital needs, and create additional market and economic uncertainty.

Although we did not hold any cash or cash equivalents at, or have any banking, credit or other relationship with, SVB or Signature Bank, if other banks and financial institutions wind down and liquidate, enter receivership or become insolvent in the future in response to financial conditions affecting the banking system and financial markets, our ability to access our existing cash, cash equivalents and investments may be threatened and could have a material adverse effect on our business and financial condition. In addition, the residual effects of the collapse of SVB and Signature Bank and related instability in the global financial markets may cause difficulties for our customers and channel partners, resulting in reduced spending by them on our solutions. Finally, if any of our vendors have relationships with any closed banks or other banks or financial institutions that close in the future, it could negatively impact their ability to deliver their services to the Company.

More generally, these events have resulted in market disruption and volatility and could lead to greater instability in the credit and financial markets and a deterioration in confidence in economic conditions. Our operations may be adversely affected by any such economic downturn, liquidity shortages, volatile business environments, or unpredictable market conditions. The future effects of these events on the financial services industry and broader economy are unknown and difficult to predict but could include failures of other financial institutions to which we or our customers, partners, vendors, or other counterparties face direct or more significant exposure. Any such developments could adversely impact our results of operation and financial position, and we cannot guarantee we will be able to avoid any negative consequences relating to these recent developments or any future related developments.

Acquisitions present many risks that could have an adverse effect on our business and results of operations.

In order to expand our business, we have made several acquisitions in the past and may continue to do so in the future. Acquisitions are inherently risky, and any acquisitions we complete may not be successful. Our past acquisitions and any mergers and acquisitions that we may undertake in the future involve numerous risks, including, but not limited to, the following:

- difficulties in integrating and managing the operations, personnel, systems, technologies and products of the companies we acquire;
- diversion of our management’s attention from normal daily operations of our business;
- our inability to maintain the key business relationships and the reputations of the businesses we acquire;
- uncertainty of entry into markets in which we have limited or no prior experience and in which competitors have stronger market positions;
- our dependence on unfamiliar affiliates, resellers, distributors and partners of the companies we acquire;
- our inability to increase revenue from an acquisition for a number of reasons, including our failure to drive demand in our existing customer base for acquired products and our failure to obtain maintenance or subscription renewals or upgrades and new product sales from customers of the acquired businesses;
- increased costs related to acquired operations and continuing support and development of acquired products;
- our responsibility for the liabilities of the businesses we acquire;
- potential goodwill and intangible asset impairment charges and amortization associated with acquired businesses;
- adverse tax consequences associated with acquisitions;
- changes in how we are required to account for our acquisitions under U.S. generally accepted accounting principles, including arrangements that we assume from an acquisition;

- potential negative perceptions of our acquisitions by customers, financial markets or investors;
- failure to obtain required approvals from governmental authorities under competition and antitrust laws on a timely basis, if at all, which could, among other things, delay or prevent us from completing a transaction, or otherwise restrict our ability to realize the expected financial or strategic goals of an acquisition;
- potential increases in our interest expense, leverage and debt service requirements if we incur additional debt to pay for an acquisition;
- our inability to apply and maintain our internal standards, controls, procedures and policies to acquired businesses; and
- potential loss of key employees of the companies we acquire.

Additionally, acquisitions or asset purchases made entirely or partially for cash may reduce our cash reserves or require us to incur additional debt under our credit agreement or otherwise. We may seek to obtain additional cash to fund an acquisition by selling equity or debt securities. We may be unable to secure the equity or debt funding necessary to finance future acquisitions on terms that are acceptable to us. If we finance acquisitions by issuing equity or convertible debt securities, our existing stockholders will experience ownership dilution.

The occurrence of any of these risks could have a material adverse effect on our business, results of operations, financial condition or cash flows, particularly in the case of a larger acquisition or substantially concurrent acquisitions.

Businesses that we acquire may have greater than expected liabilities for which we become responsible.

Businesses that we acquire may have liabilities or adverse operating issues, or both, that we fail to discover through due diligence or the extent of which we underestimate prior to the acquisition. For example, to the extent that any business that we acquire or any prior owners, employees or agents of any acquired businesses or properties (i) failed to comply with or otherwise violated applicable laws, rules or regulations; (ii) failed to fulfill or disclose their obligations, contractual or otherwise, to applicable government authorities, their customers, suppliers or others; or (iii) incurred tax or other liabilities, we, as the successor owner, may be financially responsible for these violations and failures and may suffer harm to our reputation and otherwise be adversely affected. An acquired business may have problems with internal control over financial reporting, which could be difficult for us to discover during our due diligence process and could in turn lead us to have significant deficiencies or material weaknesses in our own internal control over financial reporting. These and any other costs, liabilities and disruptions associated with any of our past acquisitions and any future acquisitions could harm our operating results.

Charges to earnings resulting from acquisitions may adversely affect our operating results.

When we acquire businesses, we allocate the purchase price to tangible assets and liabilities and identifiable intangible assets acquired at their acquisition date fair values. Any residual purchase price is recorded as goodwill, which is also generally measured at fair value. We also estimate the fair value of any contingent consideration. Our estimates of fair value are based upon assumptions believed to be reasonable, but which are uncertain and involve significant judgments by management. After we complete an acquisition, the following factors could result in material charges and adversely affect our operating results and may adversely affect our cash flows:

- costs incurred to combine the operations of companies we acquire, such as transitional employee expenses and employee retention or relocation expenses;
- impairment of goodwill or intangible assets;
- a reduction in the useful lives of intangible assets acquired;
- impairment of long-lived assets;
- identification of, or changes to, assumed contingent liabilities;
- changes in the fair value of any contingent consideration;
- charges to our operating results due to duplicative pre-merger activities;
- charges to our operating results from expenses incurred to effect the acquisition; and
- charges to our operating results due to the expensing of certain stock awards assumed in an acquisition.

Substantially all of these costs will be accounted for as expenses that will decrease our net income and earnings per share for the periods in which those costs are incurred. Charges to our operating results in any given period could differ substantially from other periods based on the timing and size of our acquisitions and the extent of integration activities.

Potential indemnification liabilities pursuant to the 2021 separation of the N-able business (the "Separation") could materially affect our business and financial statements.

In connection with the Separation of the N-able business, we entered into a separation and distribution agreement and related agreements with N-able to govern the Separation and related transactions and the relationship between the respective companies going forward. These agreements provide for specific indemnity and liability obligations of each party that can lead to disputes between us and N-able. If we are required to indemnify N-able under the circumstances set forth in these agreements, we may be subject to substantial liabilities. In addition, with respect to the liabilities for which N-able has agreed to indemnify us under these agreements, there can be no assurance that the indemnity rights we have against N-able will be sufficient to protect us against the full amount of the liabilities, or that N-able will be able to fully satisfy its indemnification obligations. It is also possible that a court could disregard the allocation of assets and liabilities agreed to between SolarWinds and N-able and require SolarWinds to assume responsibility for obligations allocated to N-able.

Climate change may have a long-term negative impact on our business.

The long-term effects of climate change on the global economy and the technology industry in particular are unclear, however there are inherent climate-related risks everywhere business is conducted. Climate-related events, including the increasing frequency of extreme weather events such as drought, water scarcity, heat waves, cold waves, flooding and wildfires, and their impact on regional short-term systemic failures in the U.S. and elsewhere, have the potential to disrupt our business, our third-party vendors, and/or the business of our customers and their end users, and may cause us to experience higher attrition, losses and additional costs to maintain and resume operations. While we employ the use of cloud technologies, we also store some data in physical data centers which depend on predictable and reliable energy and networking capabilities, which could be affected by a variety of factors, including climate change. In addition, if new laws are enacted, or current laws are modified in countries in which we or our suppliers operate, we could face increased costs to comply with these laws. These costs may be incurred across various levels of our supply chain to comply with new environmental regulations, taxes and penalties, which could cause us to incur increased costs to satisfy service obligations to customers. In addition, we may be subject to increased regulations, reporting requirements and standards, or expectations regarding the environmental impacts of our business, which may result in increased compliance costs, and any untimely or inaccurate disclosure could adversely affect our reputation, business or financial performance.

If we fail to integrate our products with a variety of operating systems, software applications, platforms and hardware that are developed by others or ourselves, our products may become less competitive or obsolete and our results of operations would be harmed.

Our products must integrate with a variety of network, cloud, hardware and software platforms, and we need to continuously modify and enhance our products to adapt to changes in hardware, software, cloud, networking, browser and database technologies. We believe a significant component of our value proposition to customers is the ability to optimize and configure our products to integrate with our systems and those of third parties. If we are not able to integrate our products in a meaningful and efficient manner, demand for our products could decrease and our business and results of operations would be harmed.

In addition, we have a large number of products, and maintaining and integrating them effectively requires extensive resources. Our continuing efforts to make our products more interoperative may not be successful. Failure of our products to operate effectively with future infrastructure platforms and technologies could reduce the demand for our products, resulting in customer dissatisfaction and harm to our business. If we are unable to respond to changes in a cost-effective manner, our products may become less marketable, less competitive or obsolete and our business and results of operations may be harmed.

Material defects or errors in our products could harm our reputation, result in significant costs to us and impair our ability to sell our products.

Software products are inherently complex and often contain defects and errors when first introduced or when new versions are released. Any defects or errors in our products could result in:

- lost or delayed market acceptance and sales of our products;
- a reduction in subscription or maintenance renewals;
- diversion of development resources;
- legal claims; and
- injury to our reputation and our brand.

The costs incurred in correcting or remediating the impact of defects or errors in our products may be substantial and could adversely affect our operating results.

Risks Related to Regulatory, Compliance and Legal Matters

We are subject to various global data privacy and security regulations, which have and could continue to result in additional costs and liabilities to us.

Our business is subject to a wide variety of local, state, national and international laws, directives and regulations that apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data. These data protection and privacy-related laws and regulations continue to evolve and have resulted in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions and increased costs of compliance. In the United States, these include rules and regulations promulgated under the authority of the Federal Trade Commission, and state data protection and breach notification laws. In connection with the Cyber Incident, our investigations revealed that the threat actor accessed the email accounts of certain of our personnel, some of which contained information related to current or former employees and customers. We identified all personal information contained in the emails of these accounts and provided notices to the impacted individuals and other parties as appropriate. Such notices may cause additional harm to our reputation and business and may result in a loss of customers or additional investigations, claims and other related costs and expenses. In addition, if we experience another security incident with a personal data or other privacy-related issue, we may be required to inform the representative state attorney general or federal or country regulator, media and credit reporting agencies, and any customers whose information was disclosed, which could further harm our reputation and business.

Other states and countries have enacted different requirements for protecting personal information collected and maintained electronically. We expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security in the United States, the European Union ("EU"), the United Kingdom ("UK") and other jurisdictions. For example, Brazil (LGPD), China (PIPL), Canada (CPPA), India (DPDP) and Europe (GDPR) have all passed privacy and data security laws, and we cannot yet determine the impact such existing and future laws, regulations and standards will have on our business or the businesses of our customers. The GDPR has an extra territorial effect and may apply outside of Europe. In addition, in the July 2020 Schrems II case, the Court determined that the E.U.-U.S. Privacy Shield, a mechanism for the transfer of personal data from the European Union to the United States, was invalid and imposed additional obligations in connection with the use of standard contractual clauses approved by the European Commission. On June 4, 2021, the European Commission released the final Implementing Decision on standard contractual clauses ("New SCCs") for the transfer of personal data from the EU to "third countries," such as the US. The New SCCs repeal and replace the existing SCCs and address the July 2020 decision in Schrems II. Although we have duly implemented the New SCCs as part of our Data Processing Addendum, data transfers from Europe to third countries remain under scrutiny by regulators and courts and further changes may occur in the future which would require further work to achieve compliance as the law develops. Following Brexit, the UK has also implemented its own data protection regime in the form of the UK GDPR and Data Protection Act 2018. While currently similar to the GDPR which applies in Europe, the UK government has stated that it intends to revise its data protection laws, and any such revisions are rapidly evolving. In March 2022, the International Data Transfer Agreement ("IDTA"), the international data transfer addendum to the European Commission's standard contractual clauses for international data transactions, was brought into force by the UK. The IDTA safeguards data related to UK data subjects when that is transferred to third countries. As this area remains under regulatory scrutiny and may change over time, further work may be required in the future to achieve compliance with the laws in relation to data transfers to/from the UK. In addition, many other countries have, or are developing, laws regulating the processing of personal data. As an international company, we may be subject to multiple overlapping or conflicting obligations under these laws, and compliance with one law may result in non-compliance with another.

Additionally, our business and our products use AI and/or machine learning and these technologies are increasingly subject to the growing attention of regulators and lawmakers. Laws, directives and regulations governing the use of AI may be adopted domestically and globally, and this may impact our business and our products, and restrict our ability to develop products in this space or hinder our ability to sell our existing products or to conduct our business effectively. In addition such laws may conflict with practices or products already in place, or in development.

Failure to comply with any of the laws concerning privacy, data protection, AI and information security could result in enforcement action against us, including fines, the suspension of data flows from one jurisdiction to another, public reprimands, imprisonment of company officials and public censure, claims for damages by end customers and other affected individuals, damage to our reputation and loss of goodwill (both in relation to existing end customers and prospective end customers), any of which could have a material adverse effect on our operations, financial performance and business. In addition, we could suffer adverse publicity and loss of customer confidence were it known that we did not take adequate measures to assure the confidentiality of the personally identifiable information that our customers had given to us. This could result in a loss of customers and revenue that could jeopardize our success. We may not be successful in avoiding potential liability or disruption of business resulting from the failure to comply with these laws and, even if we comply with laws, may be subject to liability because of the Cyber Incident or other security incidents. If we were required to pay any significant amount of money in satisfaction of claims under these laws, or any similar laws enacted by other jurisdictions, or if we were forced to cease our business operations for any length of time or suspend data flows as a result of our inability to comply fully with any of these laws, our business, operating results and financial condition could be adversely affected. Further, complying with the applicable notice requirements in connection with the Cyber Incident or another security incident may result in significant costs.

Additionally, our business efficiencies and economies of scale depend on generally uniform product offerings and uniform treatment of customers across all jurisdictions in which we operate. Compliance requirements that vary significantly from jurisdiction to jurisdiction impose added costs on our business and can increase liability for compliance deficiencies. Finally, the regulatory framework for the protection of personal data differs from jurisdiction to jurisdiction. Given the speed with which this area is developing internationally and the lack of global harmonization with regard to data protection laws, there is a risk that compliance with one data protection regime may lead to noncompliance with another, which could lead to regulatory scrutiny, litigation, enforcement action, fines or damages awards, and reputational harm to our business.

We are subject to governmental export controls and economic sanctions laws that could impair our ability to compete in international markets and subject us to liability if we are not in full compliance with applicable laws.

Certain of our products are subject to U.S. export controls, including the U.S. Department of Commerce’s Export Administration Regulations and economic and trade sanctions regulations administered by the U.S. Treasury Department’s Office of Foreign Assets Control. These regulations may limit the export of our products and provision of our services outside of the United States, or may require export authorizations, including by license, a license exception or other appropriate government authorizations, including annual or semi-annual reporting and the filing of an encryption registration. Export control and economic sanctions laws may also include prohibitions on the sale or supply of certain of our products to embargoed or sanctioned countries, regions, governments, persons, entities or end uses. The United States and other nations have imposed certain economic and other sanctions on Russia for aggression in Ukraine that have and may continue to impact our ability to generate revenues with customers who may be impacted by such sanctions. Also the United States has implemented restrictions on exports of certain technologies to China that might be used in the manufacture of semiconductor chips, and may seek to implement more protective trade measures in the future including new tariffs or more restrictive trade barriers, any of which could have an adverse impact on our business and financial results.

In addition, various countries regulate the importation of certain products, through import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our products. The exportation, re-exportation and importation of our products and the provision of services, including by our partners, must comply with these laws or else we may be adversely affected, through reputational harm, government investigations, penalties, and a curtailment or denial of our ability to export our products or provide services. Complying with export control and sanctions laws may be time-consuming and may result in the delay or loss of sales opportunities. If we are found to be in violation of U.S. sanctions or export control laws, it could result in substantial fines and penalties for us and for the individuals working for us. Changes in export or import laws or corresponding sanctions may delay the introduction and sale of our products in international markets, or, in some cases, prevent the export or import of our products to certain countries, regions, governments, persons, entities or end uses altogether, which could adversely affect our business, financial condition and results of operations.

We are also subject to various domestic and international anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, as well as other similar anti-bribery and anti-kickback laws and regulations. These laws and regulations generally prohibit companies and their employees and intermediaries from authorizing, offering or providing improper payments or benefits to officials and other recipients for improper purposes. Although we take precautions to prevent violations of these laws, our exposure for violating these laws increases as our international presence expands and as we increase sales and operations in foreign jurisdictions.

Government regulation of the internet and e-commerce is evolving, and unfavorable changes or our failure to comply with regulations could harm our operating results.

As internet commerce continues to evolve, increasing regulation by federal, state or foreign agencies becomes more likely. In addition to data privacy and security laws and regulations, taxation of products and services provided over the internet or other charges imposed by government agencies or by private organizations for accessing the internet may also be imposed. Any regulation imposing greater fees for internet use or restricting information exchange over the internet could result in a decline in the use of the internet and the viability of internet-based services and product offerings, which could harm our business and operating results. The technology industry is also subject to intense media, political, and regulatory scrutiny, which exposes us to government investigations, legal actions, and penalties. Legislators and regulators also have proposed new laws and regulations intended to restrain the activities of technology companies including laws relating to AI and machine learning. For example, the U.S. passed an Executive Order on AI in October 2023 establishing guidelines for AI development and use, and in December 2023 the European Union agreed on the first law regulating AI with the AI Act, which is expected to be enacted in early 2024. While the AI Act will not be enforceable until at least 2026, its immediate impact is likely to be significant. Like GDPR, the AI Act is extra territorial in scope so may apply outside of Europe. The AI Act categorizes AI systems based upon risk, with some uses prohibited entirely. The costs of compliance with the AI Act as well as potential fines for violations of the AI Act are each likely to be significant. The AI Act may be seen as a benchmark for regulation and may accelerate and/or inform the drafting by other countries enacting similar laws or regulations. These new laws or regulations could have impacts on us, even if they are not intended to affect our company. The AI Act and any other new laws or regulations could require us to change our products and services or alter our business operations, which could harm our business or open us up to additional scrutiny by new AI regulators.

Future litigation could result in material adverse consequences, including judgments or settlements.

From time to time, we have been and may be involved in various legal proceedings and claims arising in our ordinary course of business. Other than the litigation relating to the Cyber Incident, neither we nor any of our subsidiaries is a party to, and none of our respective property is the subject of, any material legal proceeding. However, the outcomes of legal proceedings and claims brought against us are subject to significant uncertainty. Future litigation may result in a diversion of management’s attention and resources, significant costs, including monetary damages and legal fees, and injunctive relief, and may contribute to current and future stock price volatility. No assurance can be made that future litigation will not result in material financial exposure or reputational harm, which could have a material adverse effect upon our results of operations, profitability or cash flows.

Risks Related to Our Intellectual Property

The success of our business depends on our ability to obtain, maintain, protect and enforce our intellectual property rights.

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop or license so that we can prevent others from using our inventions and proprietary information. If we fail to protect our intellectual property rights adequately, our competitors might gain access to our technology, and our business might be adversely affected. However, protecting and enforcing our intellectual property rights might entail significant expenses. Any of our intellectual property rights may be challenged by others, weakened or invalidated through administrative process or litigation. We rely primarily on a combination of patent, copyright, trademark, trade dress, unfair competition and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights. These laws, procedures and restrictions provide only limited protection.

As of December 31, 2023, we had 34 issued U.S. patents and have also filed patent applications, but patents may not be issued with respect to these applications. The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Even if issued, there can be no assurance that these patents, or our existing patents, will adequately protect our intellectual property, as the legal standards relating to the validity, enforceability and scope of protection of patent and other intellectual property rights are uncertain. Our patents and any future patents issued to us may be challenged, invalidated or circumvented, and may not provide sufficiently broad protection or may not prove to be enforceable in actions against alleged infringers. Any patents that are issued may subsequently be invalidated or otherwise limited, allowing other companies to develop offerings that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. In addition, issuance of a patent does not guarantee that we have a right to practice the patented invention. Patent applications in the United States are typically not published until 18 months after filing or, in some cases, not at all, and publications of discoveries in industry-related literature lag behind actual discoveries. We cannot be certain that third parties do not have blocking patents that could be used to prevent us from marketing or practicing our patented software or technology.

We endeavor to enter into agreements with our employees and contractors and with parties with which we do business in order to limit access to and disclosure of our trade secrets and other proprietary information. We cannot be certain that the steps we have taken will prevent unauthorized use, misappropriation or reverse engineering of our technology. Moreover, others may independently develop technologies that are competitive to ours and may infringe our intellectual property. The enforcement of our intellectual property rights also depends on our legal actions against these infringers being successful, but these actions may not be successful, even when our rights have been infringed. Further, any litigation, whether or not resolved in our favor, could be costly and time-consuming.

Our exposure to risks related to the protection of intellectual property may be increased in the context of acquired technologies as we have a lower level of visibility into the development process and the actions taken to establish and protect proprietary rights in the acquired technology. In connection with past acquisitions, we have found that some associated intellectual property rights, such as domain names and trademarks in certain jurisdictions, are owned by resellers, distributors or other third parties. In the past, we have experienced difficulties in obtaining assignments of these associated intellectual property rights from third parties.

Furthermore, effective patent, trademark, trade dress, copyright and trade secret protection may not be available in every country in which our products are available. The laws of some foreign countries may not be as protective of intellectual property rights as those in the United States (in particular, some foreign jurisdictions do not permit patent protection for software), and mechanisms for enforcement of intellectual property rights may be inadequate. In addition, the legal standards, both in the United States and in foreign countries, relating to the validity, enforceability and scope of protection of intellectual property rights are uncertain and still evolving. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our intellectual property.

We might be required to spend significant resources to monitor and protect our intellectual property rights. We may initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Litigation also puts our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing. Additionally, we may provoke third parties to assert counterclaims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially viable. Any litigation, whether or not resolved in our favor, could result in significant expense to us and divert the efforts of our technical and management personnel, which may adversely affect our business, results of operations, financial condition and cash flows.

Exposure related to any disputes and litigation with respect to intellectual property could adversely affect our results of operations, profitability and cash flows.

The software and technology industries are characterized by the existence of a large number of patents, copyrights, trademarks and trade secrets and by frequent litigation based on allegations of infringement or other violations of intellectual property rights. We have received, and from time to time may receive, letters claiming that our products infringe or may infringe the patents or other intellectual property rights of others. As we face increasing competition and as our brand awareness increases, the possibility of additional intellectual property rights claims against us grows. Our technologies may not be able to withstand any third-party claims or rights against their use. Additionally, we have licensed from other parties proprietary technology covered by patents and other intellectual property rights, and these patents or other intellectual property rights may be challenged, invalidated or circumvented. These types of claims could harm our relationships with our customers, might deter future customers from acquiring our products or could expose us to litigation with respect to these claims. Even if we are not a party to any litigation between a customer and a third party, an adverse outcome in that litigation could make it more difficult for us to defend our intellectual property in any subsequent litigation in which we are named as a party. Any of these results would have a negative effect on our business and operating results.

Any intellectual property rights claim against us or our customers, with or without merit, could be time-consuming and expensive to litigate or settle and could divert management resources and attention. As a result of any successful intellectual property rights claim against us or our customers, we might have to pay damages or stop using technology found to be in violation of a third party’s rights, which could prevent us from offering our products to our customers. We could also have to seek a license for the technology, which might not be available on reasonable terms, and this might significantly increase our cost of revenue or might require us to restrict our business activities in one or more respects. The technology also might not be available for license to us at all. As a result, we could also be required to develop alternative non-infringing technology or cease to offer a particular product, which could require significant effort and expense and/or hurt our revenue and financial results of operations.

Our exposure to risks associated with the use of intellectual property may be increased as a result of our past and any future acquisitions as we have a lower level of visibility into the development process with respect to acquired technology or the care taken to safeguard against infringement risks. Third parties may make infringement and similar or related claims after we have acquired technology that had not been asserted prior to our acquisition.

Our use of open-source software could negatively affect our ability to sell our products and subject us to possible litigation.

Some of our products incorporate open-source software, and we intend to continue to use open-source software in the future. Some terms of certain open-source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that open-source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to monetize our products. Additionally, we may from time to time face claims from third parties claiming ownership of, or demanding release of, the open-source software or derivative works that we developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of the applicable open-source software license. These claims could result in litigation and could require us to make our software source code freely available, purchase a costly license to continue offering the software or cease offering the implicated services unless and until we can re-engineer them to avoid infringement or violation. This re-engineering process could require significant additional research and development resources, and we may not be willing to entertain the cost associated with updating the software or be able to complete it successfully. In addition to risks related to license requirements, use of certain open-source software can lead to greater risks than use of third-party commercial software, as open-source licensors generally do not provide warranties or controls on the origin of software and, thus, may contain security vulnerabilities or infringing or broken code. Additionally, if we utilize open-source licenses that require us to contribute to open-source projects, this software code is publicly available; and our ability to protect our intellectual property rights with respect to such software source code may be limited or lost entirely. We may be unable to prevent our competitors or others from using such contributed software source code. Any of these risks could be difficult to eliminate or manage, and if not addressed, could have a negative effect on our business, operating results and financial condition.

Our products use third-party software that may be difficult to replace or cause errors or failures of our products that could lead to a loss of customers or harm to our reputation and our operating results.

We license third-party software from various third parties for use in our products. In the future, this software may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of the software could result in decreased functionality of our products until equivalent technology is either developed by us or, if available from another provider, is identified, obtained and integrated, which could harm our business. In addition, any vulnerabilities, errors or defects in or failures of the third-party software could result in cyberattacks on or errors or defects in our products or cause our products to fail, which could harm our business and be costly to correct. Many of these providers attempt to impose limitations on their liability for such errors, defects or failures, and if enforceable, we may have additional liability to our customers or third-party providers that could harm our reputation and increase our operating costs.

Risks Related to Our Indebtedness

We have substantial indebtedness, which could adversely affect our financial health and our ability to obtain financing in the future, react to changes in our business and meet our obligations with respect to our indebtedness.

As of December 31, 2023, our total indebtedness was $1.2 billion and we had $130 million available for additional borrowing under our credit facilities. Our net interest expense during the years ended December 31, 2023, 2022 and 2021 was approximately $115.8 million, $83.4 million and $64.5 million, respectively.

Our substantial indebtedness incurred under the credit agreement could have important consequences, including:

- requiring us to dedicate a substantial portion of our cash flows from operations to payments on our indebtedness, thereby reducing the funds available for operations;

- increasing our vulnerability to adverse economic and industry conditions, which could place us at a competitive disadvantage compared to our competitors that have relatively less indebtedness;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate;
- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;
- requiring us under certain circumstances to repatriate earnings from our international operations in order to make payments on our indebtedness, which could subject us to local country income and withholding taxes and/or state income taxes that are not currently accrued in our financial statements;
- requiring us to liquidate short-term or long-term investments in order to make payments on our indebtedness, which could generate losses;
- exposing us to the risk of increased interest rates as borrowings under the credit agreement are subject to variable rates of interest; and
- limiting our ability to refinance, borrow additional funds, or to dispose of assets to raise funds, if needed, for working capital, capital expenditures, acquisitions, product development and other corporate purposes.

Despite our current indebtedness level, we and our restricted subsidiaries may be able to incur substantially more indebtedness, which could further exacerbate the risks associated with our substantial indebtedness.

Although the terms of the agreements governing our outstanding indebtedness contain restrictions on the incurrence of additional indebtedness, such restrictions are subject to a number of important exceptions and indebtedness incurred in compliance with such restrictions could be substantial. If we and our restricted subsidiaries incur significant additional indebtedness, the related risks that we face could increase. If new debt is added to our or our subsidiaries' current debt levels, the related risks that we now face would increase, and we may not be able to meet all our debt obligations. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources*."

The agreements governing our indebtedness contain restrictions and limitations that may restrict our business and financing activities and expose us to risks that could adversely affect our liquidity and financial condition.

The credit agreement governing our credit facilities contains various covenants that are operative so long as our credit facilities remain outstanding. The covenants, among other things, limit our and certain of our subsidiaries' abilities to:

- incur additional indebtedness;
- incur liens;
- engage in mergers, consolidations, liquidations or dissolutions;
- pay dividends and distributions on, or redeem, repurchase or retire our capital stock;
- make investments, acquisitions, loans or advances;
- create negative pledges or restrictions on the payment of dividends or payment of other amounts owed from subsidiaries;
- sell, transfer or otherwise dispose of assets, including capital stock of subsidiaries;
- make prepayments of material debt that is subordinated with respect to right of payment;
- engage in certain transactions with affiliates;
- modify certain documents governing material debt that is subordinated with respect to right of payment;
- change our fiscal year; and
- change our lines of business.

Our credit agreement also contains numerous affirmative covenants, including a financial covenant which requires that, at the end of each fiscal quarter, for so long as the aggregate principal amount of borrowings under our revolving credit facility exceeds 35% of the aggregate commitments under the revolving credit facility, our first lien net leverage ratio cannot exceed 7.40 to 1.00. A breach of this financial covenant will not result in a default or event of default under the term loan facility under our first lien credit agreement unless and until the lenders under our revolving credit facility have terminated the commitments under the revolving credit facility and declared the borrowings under the revolving credit facility due and payable.

Our ability to comply with the covenants and restrictions contained in the credit agreement governing our credit facilities may be affected by economic, financial and industry conditions beyond our control. The restrictions in the credit agreement governing our credit facilities may prevent us from taking actions that we believe would be in the best interests of our business and may make it difficult for us to execute our business strategy successfully or effectively compete with companies that are not similarly restricted. Even if our credit agreement is terminated, any additional debt that we incur in the future could subject us to similar or additional covenants.

The credit agreement includes customary events of default, including, among others, failure to pay principal, interest or other amounts; material inaccuracy of representations and warranties; violation of covenants; specified cross-default and cross-acceleration to other material indebtedness; certain bankruptcy and insolvency events; certain ERISA events; certain undischarged judgments; material invalidity of guarantees or grant of security interest; and change of control. Any default that is not cured or waived could result in the termination of our credit agreement or an acceleration of the obligations under the credit agreement. Any such default would permit the applicable lenders to declare all amounts outstanding thereunder to be due and payable, together with accrued and unpaid interest. In addition, such a default or acceleration may result in the acceleration of any other debt to which a cross-acceleration or cross-default provision applies. If we are unable to repay our indebtedness, lenders having secured obligations, such as the lenders under our credit facilities, could proceed against the collateral securing the indebtedness. In any such case, we may be unable to borrow under our credit facilities and may not be able to repay the amounts due under our credit facilities. This could have serious consequences to our financial condition and results of operations and could cause us to become bankrupt or insolvent.

Certain of our indebtedness may be denominated in foreign currencies, which subjects us to foreign exchange risk, which could cause our debt service obligations to increase significantly.

Our credit facilities include a senior secured revolving credit facility, which permits borrowings denominated in Euros and other alternative currencies that may be approved by the applicable lenders. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources*." Such non-U.S. dollar-denominated debt may not necessarily correspond to the cash flow we generate in such currencies. Sharp changes in the exchange rates between the currencies in which we borrow and the currencies in which we generate cash flow could adversely affect us. In the future, we may enter into contractual arrangements designed to hedge a portion of the foreign currency exchange risk associated with any non-U.S. dollar-denominated debt. If these hedging arrangements are unsuccessful, we may experience an adverse effect on our business and results of operations.

We are subject to fluctuations in interest rates.

Borrowings under our credit facilities are subject to variable rates of interest and expose us to interest rate risk. Borrowings outstanding under our credit agreement currently bears interest at variable rates equal to applicable margins plus specified base rates or Secured Overnight Financing Rate, or SOFR, with a 0% floor. The Company may also elect to convert our borrowings at a specified base rate.

At present, we do not have any existing interest rate swap agreements, which involve the exchange of floating for fixed rate interest payments to reduce interest rate volatility. However, we may decide to enter into such swaps in the future. If we do, we may not maintain interest rate swaps with respect to all of our variable rate indebtedness and any swaps we enter into may not fully mitigate our interest rate risk, may prove disadvantageous or may create additional risks.

See *Quantitative and Qualitative Disclosures About Market Risk* in Item 7A of Part II of this Annual Report on Form 10-K for additional information regarding our interest rate risk.

Risks Related to Accounting and Taxation

Failure to maintain proper and effective internal controls could have a material adverse effect on our business, operating results and stock price.

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on internal control over financial reporting. We also are required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm.

Any failure to maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results, cause us to fail to meet our reporting obligations, result in a restatement of our financial statements for prior periods or adversely affect the results of management evaluations and independent registered public accounting firm audits of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock.

If we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could be adversely affected and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC or other regulatory authorities, which could require additional financial and management resources.

Changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and affect our reported results of operations.

A change in accounting standards or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. Changes to existing rules or the questioning of current practices may adversely affect our reported financial results or the way in which we conduct our business.

Our business and financial performance could be negatively impacted by changes in tax laws or regulations or changes in our effective tax rates.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. Any changes to these existing tax laws could adversely affect our domestic and international business operations, and our business and financial performance, including provisions of the Inflation Reduction Act of 2022. Additionally, these events could require us or our customers to pay additional tax amounts on a prospective or retroactive basis, as well as require us or our customers to pay fines and/or penalties and interest for past amounts deemed to be due. If we raise our product and maintenance prices to offset the costs of these changes, existing customers may elect not to renew their maintenance arrangements and potential customers may elect not to purchase our products. Additionally, changes in foreign taxation laws such as The Pillar Two Model Rules (also referred to as the "Global Anti-Base Erosion" or "GloBE" Rules), address the tax challenges of the digitalization of the economy and are designed to ensure large multinational enterprises pay a minimum level of tax on the income arising in each jurisdiction where they operate, could have an adverse impact to our business if we become in scope. Any new, changed, modified or newly interpreted or applied tax laws could increase our customers' and our compliance, operating and other costs, as well as the costs of our products. Further, these events could decrease the capital we have available to operate our business. Any or all of these events could adversely impact our business and financial performance.

Additionally, the U.S. Tax Cuts and Jobs Act of 2017 (the "U.S. Tax Act") which was enacted on December 22, 2017, requires complex computations to be performed, significant judgments to be made in the interpretation of the provisions of the U.S. Tax Act, significant estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. The U.S. Treasury Department continues to interpret or issue guidance on how provisions of the U.S. Tax Act will be applied or otherwise administered. As additional guidance is issued, we may make adjustments to amounts that we have previously recorded that may materially impact our financial statements in the period in which the adjustments are made.

The current U.S. presidential administration could enact changes in tax laws that could negatively impact our effective tax rate. President Biden previously proposed certain tax law changes that would, among other things, raise the rate on both domestic income (from 21% to 28%) and foreign income and impose a new alternative minimum tax on book income. If these proposals are ultimately enacted into legislation, they could materially impact our tax provision, cash tax liability and effective tax rate. If any or all of these (or similar) proposals are ultimately enacted into law, in whole or in part, they could have a negative impact to our cash tax liability and effective tax rate.

Additional liabilities related to taxes or potential tax adjustments could adversely impact our business and financial performance.

We are subject to tax and related obligations in various federal, state, local and foreign jurisdictions in which we operate or do business. The taxing rules of the various jurisdictions in which we operate or do business are often complex and subject to differing interpretations. Tax authorities could challenge our tax positions we historically have taken, or intend to take in the future, or may audit the tax filings we have made and assess additional taxes. Tax authorities may also assess taxes in jurisdictions where we have not made tax filings. Any assessments incurred could be material and may also involve the imposition of substantial penalties and interest. Significant judgment is required in evaluating our tax positions and in establishing appropriate reserves, and the resolutions of our tax positions are unpredictable. The payment of additional taxes, penalties or interest resulting from any assessments could adversely impact our business and financial performance.

Our corporate structure and intercompany arrangements are subject to the tax laws of various jurisdictions, and we could be obligated to pay additional taxes, which would harm our operating results.

Based on our current corporate structure, we may be subject to taxation in several jurisdictions around the world with increasingly complex tax laws, the application of which can be uncertain. The amount of taxes we pay in these jurisdictions could increase substantially as a result of changes in the applicable tax rules, including increased tax rates, new tax laws or revised interpretations of existing tax laws and precedents. In addition, the authorities in these jurisdictions could challenge our methodologies for valuing developed technology or intercompany arrangements, including our transfer pricing. The relevant taxing authorities may determine that the manner in which we operate our business does not achieve the intended tax consequences. If such a disagreement were to occur, and our position were not sustained, we could be required to pay additional taxes, interest and penalties. Such authorities could claim that various withholding requirements apply to us or our subsidiaries or assert that benefits of tax treaties are not available to us or our subsidiaries. Any increase in the amount of taxes we pay or that are imposed on us could increase our worldwide effective tax rate and adversely affect our business and operating results.

Risks Related to Ownership of Our Common Stock

The trading price of our common stock has been and may continue to be volatile, which could cause the value of your investment to decline.

Technology stocks have historically experienced high levels of volatility. The trading price of our common stock has and may continue to fluctuate significantly. Factors that have and could cause fluctuations in the trading price of our common stock include the following:

- announcements of new products or technologies, commercial relationships, strategic initiatives, acquisitions or other events by us or our competitors;
- changes in how customers perceive the benefits of our products;
- shifts in the mix of revenue attributable to perpetual licenses and to subscriptions from quarter to quarter, including the mix of revenue from time-based subscription offerings and SaaS offerings;
- changes in our profitability;
- departures of key personnel;
- price and volume fluctuations in the overall stock market from time to time;
- adverse developments with respect to the pending SEC litigation resulting from the Cyber Incident;
- fluctuations in the trading volume of our shares or the size of our public float;
- sales of large blocks of our common stock, including sales by our Sponsors;
- actual or anticipated changes or fluctuations in our operating results;
- whether our operating results meet the expectations of securities analysts or investors or our forecasted guidance;
- changes in actual or future expectations of investors or securities analysts;
- litigation involving us, our industry or both;
- regulatory developments in the United States, foreign countries or both;

- general global macroeconomic conditions and trends, including market impacts related to the wars in Ukraine and Israel, rising escalations in the Middle East, geopolitical tensions in China, disruptions in the global supply chain and energy markets, inflation, changes in interest rates and the COVID pandemic;
- major catastrophic events in our domestic and foreign markets; and
- “flash crashes,” “freeze flashes” or other glitches that disrupt trading on the securities exchange on which we are listed.

In addition, if the market for technology stocks or the stock market in general experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, operating results or financial condition. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the trading price of a company’s securities, securities class-action litigation has often been brought against that company. If our stock price is volatile, we may become the target of securities litigation. Securities litigation could result in substantial costs and divert our management’s attention and resources from our business, which could have an adverse effect on our business, operating results and financial condition.

We have incurred and will continue to incur increased costs and administrative burden by being a public company, including costs to maintain adequate internal controls over our financial and management systems, which could have an adverse effect on our operations and financial results.

As a public company, we are subject to laws, regulations and requirements, certain corporate governance provisions of the Sarbanes-Oxley Act, related regulations of the SEC and the requirements of the NYSE. Complying with these statutes, regulations and requirements occupies a significant amount of time of our board of directors and management and significantly increases our costs and expenses as compared to when we were a private company. For example, as a public company, we have had to institute a more comprehensive compliance function, comply with rules promulgated by the NYSE, prepare and distribute periodic public reports in compliance with our obligations under the federal securities laws, maintain effective disclosure controls and procedures and internal controls for financial reporting, review and maintain internal policies, such as those relating to insider trading, and involve and retain to a greater degree outside counsel and accountants in the above activities. In addition, being a public company subject to these rules and regulations has made it more expensive for us to obtain director and officer liability insurance, and we have been required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as executive officers.

Furthermore, we are required to have our independent registered public accounting firm attest to the effectiveness of our internal controls. Ensuring that we have adequate internal financial and accounting controls and procedures in place so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently, including if we acquire additional businesses and integrate their operations or as rules and regulations change. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements in accordance with GAAP. If we make acquisitions in the future, we will need to similarly assess and ensure the adequacy of the internal financial and accounting controls and procedures of such acquisitions. If we fail to maintain proper and effective internal controls, including with respect to acquired businesses, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, harm our ability to operate our business and reduce the trading price of our common stock.

In addition, as the rules and regulations applicable to public companies continue to evolve and in certain areas, expand, we have and expect to continue to invest additional time and cost related to compliance. These investments may result in increased general and administrative expenses and a diversion of management's time and attention. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate investigations, administrative proceedings or legal proceedings against us and our business may be adversely affected.

If securities analysts or industry analysts were to downgrade our stock, publish negative research or reports or fail to publish reports about our business, our competitive position could suffer, and our stock price and trading volume could decline.

The trading market for our common stock, to some extent, depends on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If our results fail to meet the expectations of one or more of the analysts who cover our stock, or if one or more of such analysts should downgrade our stock or publish negative research or reports, regardless of accuracy, cease coverage of our company or fail to regularly publish reports about our business, our competitive position could suffer, and our stock price and trading volume could decline.

Sales of substantial amounts of our common stock in the public markets, or the perception that such sales could occur, could reduce the market price of our common stock.

Sales of a substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could adversely affect the market price of our common stock. As of December 31, 2023, we had 166,637,506 shares of common stock outstanding.

In addition, as of December 31, 2023, there were 127,222 shares of common stock subject to outstanding options, 9,486,881 shares of common stock to be issued upon the vesting of outstanding restricted stock units and 2,000,923 shares of common stock that may be issued upon the vesting of outstanding performance stock units. We have registered all of the shares of common stock issuable upon the exercise, vesting or settlement of these awards, and any other equity incentives we may grant in the future, for public resale under the Securities Act. We also provide eligible employees with the opportunity to purchase shares of our common stock at a discounted price per share through our ESPP. Accordingly, these shares may be freely sold in the public market upon issuance as permitted by any applicable vesting requirements, subject to compliance with applicable securities laws.

Furthermore, holders of approximately 112 million shares of our common stock have certain rights with respect to the registration of such shares (and any additional shares acquired by such holders in the future) under the Securities Act. Future sales of shares of our common stock could cause the trading price of our common stock to decline and make it more difficult for you to sell shares of our common stock.

Our issuance of additional capital stock in connection with financings, acquisitions, investments, our stock incentive plans or otherwise will dilute all other stockholders.

We intend to issue additional capital stock in the future as part of our equity incentive plans, and such issuances will result in dilution to all other stockholders. We may also raise capital through equity financings in the future. As part of our business strategy, we may acquire or make investments in complementary companies, products or technologies and issue equity securities to pay for any such acquisition or investment. Any such issuances of additional capital stock may cause stockholders to experience significant dilution of their ownership interests and the per-share value of our common stock to decline.

We have not paid a cash dividend on our common stock since the spin-off of N-able and any future dividend payments are at the discretion of our board of directors.

We have not declared or paid a cash dividend on our common stock since the special cash dividend in July 2021 in connection with the spin-off of N-able. Any declaration and payment of a cash dividend on our common stock in the future will be at the discretion of our board of directors and will depend upon our results of operations, financial condition, our level of indebtedness and restrictions imposed by our credit agreement, restrictions imposed by applicable law and other factors our board of directors deems relevant. As a result, a return on investment in our common stock may be limited to increases in the market price of our common stock.

Risks Related to Our Organizational Structure

Our restated charter and restated bylaws contain anti-takeover provisions that could delay or discourage takeover attempts that stockholders may consider favorable.

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

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- after the Lead Sponsors cease to beneficially own, in the aggregate, at least 30% of the outstanding shares of our common stock, removal of directors only for cause;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;

- subject to the rights of the Sponsors under the stockholders' agreement, allowing only our board of directors to fill vacancies on our board of directors, which prevents stockholders from being able to fill vacancies on our board of directors;
- after the Lead Sponsors cease to beneficially own, in the aggregate, at least 40% of the outstanding shares of our common stock, a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our bylaws or remove directors without holding a meeting of our stockholders called in accordance with our bylaws;
- after the Lead Sponsors cease to beneficially own, in the aggregate, at least 40% of the outstanding shares of our common stock, the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, is required to amend the provisions of our restated charter relating to the management of our business (including our classified board structure) or certain provisions of our bylaws, which may inhibit the ability of an acquirer to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt;
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us; and
- a prohibition of cumulative voting in the election of our board of directors, which would otherwise allow less than a majority of stockholders to elect director candidates.

Our restated charter also contains a provision that provides us with protections similar to Section 203 of the Delaware General Corporation Law, or the DGCL, and prevents us from engaging in a business combination, such as a merger, with an interested stockholder (i.e., a person or group that acquires at least 15% of our voting stock) for a period of three years from the date such person became an interested stockholder, unless (with certain exceptions) the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. However, our restated charter also provides that the Sponsors, including the Silver Lake Funds and the Thoma Bravo Funds and any persons to whom any Silver Lake Fund or Thoma Bravo Fund or any of their respective affiliates sells its common stock, will not constitute "interested stockholders" for purposes of this provision.

The Lead Sponsors have a controlling influence over matters requiring stockholder approval, which could delay or prevent a change of control.

The Sponsors beneficially owned in the aggregate 67.0% of our common stock as of December 31, 2023. The Sponsors have entered into a stockholders' agreement whereby they each agreed, among other things, to vote the shares each beneficially owns in favor of the director nominees designated by Silver Lake and Thoma Bravo, respectively. As a result, Silver Lake and Thoma Bravo could exert significant influence over our operations and business strategy and would together have sufficient voting power to effectively control the outcome of matters requiring stockholder approval. These matters may include:

- the composition of our board of directors, which has the authority to direct our business and to appoint and remove our officers;
- approving or rejecting a merger, consolidation or other business combination;
- raising future capital; and
- amending our restated charter and restated bylaws, which govern the rights attached to our common stock.

Additionally, for so long as the Sponsors beneficially own, in the aggregate, 40% or more of our outstanding shares of common stock, the Sponsors will have the right to designate a majority of our board of directors. For so long as the Sponsors have the right to designate a majority of our board of directors, the directors designated by the Sponsors are expected to constitute a majority of each committee of our board of directors, other than the audit committee and the technology and cybersecurity committee, and the chairman of each of the committees, other than the audit committee and the technology and cybersecurity committee, is expected to be a director serving on such committee who is designated by the Sponsors.

This concentration of ownership of our common stock could delay or prevent proxy contests, mergers, tender offers, open-market purchase programs or other purchases of our common stock that might otherwise give you the opportunity to realize a premium over the then-prevailing market price of our common stock. This concentration of ownership may also adversely affect our share price.

Certain of our current and former directors have relationships with the Lead Sponsors which may cause conflicts of interest with respect to our business.

Of our nine directors, three are affiliated with Silver Lake. These directors have fiduciary duties to us and, in addition, have duties to Silver Lake and its affiliated funds, respectively. As a result, these directors may face real or apparent conflicts of interest with respect to matters affecting both us and Silver Lake, whose interests may be adverse to ours in some circumstances. In addition, previously, three of our directors were elected to our Board as designees of affiliates of Thoma Bravo. These three directors notified the Company in October 2022 of their decision to resign from the Board and its committees, following receipt of a letter from the US Department of Justice alleging that their service on the Board violated Section 8 of the Clayton Antitrust Act. Thoma Bravo retains the right to designate up to three directors pursuant to the Amended and Restated Stockholders' Agreement, dated as of October 18, 2018, as amended, by and among the Company and certain stockholders named therein. To the extent that Thoma Bravo designates directors to fill the vacancies created by such resignations, such directors may face similar real or apparent conflicts of interest. In addition, any current or future designees of the Lead Sponsors could in the future face potential challenges under Section 8 of the Clayton Antitrust Act or other applicable antitrust laws.

The Sponsors and their affiliated funds may pursue corporate opportunities independent of us that could present conflicts with our and our stockholders' interests.

The Sponsors and their affiliated funds are in the business of making or advising on investments in companies and hold (and may from time to time in the future acquire) interests in or provide advice to businesses that directly or indirectly compete with certain portions of our business or are suppliers or customers of ours. The Sponsors and their affiliated funds may also pursue acquisitions that may be complementary to our business and, as a result, those acquisition opportunities may not be available to us.

Our restated charter provides that no officer or director of the Company who is also an officer, director, employee, partner, managing director, principal, independent contractor or other affiliate of either of the Sponsors will be liable to us or our stockholders for breach of any fiduciary duty by reason of the fact that any such individual pursues or acquires a corporate opportunity for its own account or the account of an affiliate, as applicable, instead of us, directs a corporate opportunity to any other person instead of us or does not communicate information regarding a corporate opportunity to us.

We may issue preferred stock whose terms could adversely affect the voting power or value of our common stock.

Our restated charter authorizes us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such designations, preferences, limitations and relative rights, including preferences over our common stock respecting dividends and distributions, as our board of directors may determine. The terms of one or more classes or series of preferred stock could adversely impact the voting power or value of our common stock. For example, we might grant holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or the right to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we might assign to holders of preferred stock could affect the residual value of our common stock.

Our restated charter designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Our restated charter provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or agents to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, our charter or bylaws, or (iv) any action asserting a claim against us that is governed by the internal affairs doctrine, in each such case subject to such Court of Chancery of the State of Delaware having personal jurisdiction over the indispensable parties named as defendants therein. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and consented to, the provisions of our restated charter described in the preceding sentence. This exclusive forum provision does not apply to establish the Delaware Court of Chancery as the forum for actions or proceedings brought to enforce a duty or liability created by the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. This choice-of-forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits against us and such persons. Alternatively, if a court were to find these provisions of our restated charter inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition or operating results.

We are a controlled company within the meaning of the NYSE rules and, as a result, may rely on exemptions from certain corporate governance requirements.

The Sponsors beneficially own a majority of the combined voting power of all classes of our outstanding voting stock. As a result, we are a controlled company within the meaning of the NYSE corporate governance standards. Under the NYSE rules, a company of which more than 50% of the voting power is held by another person or group of persons acting together is a controlled company and may elect not to comply with certain NYSE corporate governance requirements, including the requirements that:

- a majority of the board of directors consist of independent directors as defined under the rules of the NYSE;
- the nominating and governance committee be composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and
- the compensation committee be composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities.

These requirements will not apply to us as long as we remain a controlled company. Although we currently do not take advantage of these exemptions, we may choose to do so in the future. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the NYSE.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

Cybersecurity Risk Management and Strategy

We have developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity, and availability of our critical systems and information.

We use, among other frameworks, the NIST Cybersecurity Framework and CIS Critical Security Controls as guides to help us identify, assess, and manage cybersecurity risks relevant to our business. Although we refer to such frameworks in developing our cybersecurity risk management approaches, our use of them as guides is not intended to suggest that we meet any particular technical standards, specifications, or requirements set forth therein.

Our cybersecurity risk management program is integrated with our overall enterprise risk management program, and shares common methodologies, reporting channels and governance processes that apply across the enterprise risk management program to other legal, compliance, strategic, operational and financial risk areas.

Our cybersecurity risk management program includes the following key elements:

- risk assessments designed to help identify material cybersecurity risks to our critical systems, information, services, and our broader enterprise IT environment;
- a team comprised of IT security, IT infrastructure, and IT compliance personnel principally responsible for directing (1) our cybersecurity risk assessment processes, (2) our security processes, and (3) our response to cybersecurity incidents;
- the use of external cybersecurity service providers, where appropriate, to assess, test or otherwise assist with aspects of our security processes;
- cybersecurity awareness training of employees with access to our IT systems;
- a cybersecurity incident response plan, incident response policy and Security Operations Center (SOC) to respond to cybersecurity incidents; and

- a third-party risk management process for key service providers, suppliers, and vendors to assess for cyber risks and to assist the business in making risk-informed technology product and services decisions. We perform due diligence, including risk assessments, as appropriate, on third parties who maintain material data or information to help us evaluate and verify third party information security capabilities.

There can be no assurance that our cybersecurity risk management program, including our controls, procedures and processes, will be fully complied with or that our program will be fully effective in protecting the confidentiality, integrity and availability of our information systems and our solutions. See Part I, Item 1A. "*Risk Factors – Risks Related to Our Technology, Cybersecurity and the Cyber Incident*" of this Annual Report on Form 10-K.

Other than with respect to the Cyber Incident, we have not identified risks from known cybersecurity threats, including as a result of any prior cybersecurity incidents, that have materially affected us, including our operations, business strategy, results of operations, or financial condition. We face certain ongoing risks from cybersecurity threats that, if realized and material, are reasonably likely to materially affect us, including our operations, business strategy, results of operations, or financial condition. See Part I, Item 1A. "*Risk Factors – Risks Related to Our Technology, Cybersecurity and the Cyber Incident*" of this Annual Report on Form 10-K.

Cybersecurity Governance

Our Board considers cybersecurity risk as critical to the enterprise and delegates the cybersecurity risk oversight function to the Board's Technology and Cybersecurity Committee (the "Technology and Cybersecurity Committee"). The Technology and Cybersecurity Committee oversees management's design, implementation and enforcement of our information technology systems and cybersecurity risk management program. Our Technology and Cybersecurity Committee meets and reports to the full Board at least quarterly.

Our Chief Information Security Officer, or CISO, regularly reports to the Technology and Cybersecurity Committee on an at least quarterly basis and leads the Company's overall cybersecurity function. The Technology and Cybersecurity Committee receives regular reports from our CISO on our cybersecurity risks, including briefings on our cyber risk management program and cybersecurity incidents. Technology and Cybersecurity Committee members also receive regular presentations on cybersecurity topics from our CISO, supported by our internal security staff, as part of the Board's continuing education on topics that impact public companies.

Our CISO supervises efforts to prevent, detect, mitigate, and remediate cybersecurity risks and incidents through various means, which include briefings from internal security personnel; threat intelligence and other information obtained from governmental, public or private sources, including external cybersecurity service providers; and alerts and reports produced by security tools deployed in our IT environment.

While our Board and Technology and Cybersecurity Committee oversee cybersecurity risk, our senior leadership is responsible for identifying, assessing and managing our material risks from cybersecurity threats. Our IT organization, which is led by our Chief Information Officer, is accountable for our overall cybersecurity risk management program. Reporting to our Chief Information Officer is the individual who provides day-to-day oversight of our cybersecurity program and supervises both our internal cybersecurity personnel and our external cybersecurity service providers, our Chief Information Security Officer ("CISO"). Our CISO has an undergraduate degree in computer science and 30 years of experience in the IT, engineering and cybersecurity space. He has been with the Company since 2017, and previously served in management roles overseeing cybersecurity and security architecture at both publicly traded and private companies in the technology and software development industries. Our CISO is a recognized leader in the cybersecurity industry and often speaks at notable events throughout the world. The team that runs our cybersecurity risk management program comprises IT security, IT infrastructure and IT compliance personnel, who have prior work experience in various roles involving information technology (such as security, auditing, compliance, systems or programming) and/or relevant education or certifications.

ITEM 2. PROPERTIES

We lease our offices and do not own any real estate. Our corporate headquarters is located in Austin, Texas and currently consists of approximately 348,000 square feet. We also lease office space domestically and internationally in various locations for our operations, including facilities located in Cork, Ireland; Manila, Philippines; Brno, Czech Republic; Singapore; Krakow, Poland; Reston, Virginia and Charlotte, North Carolina.

We believe our current facilities will be adequate for the foreseeable future. If we require additional or substitute space, we believe that we will be able to obtain such space on acceptable, commercially reasonable terms.

ITEM 3. LEGAL PROCEEDINGS

For a description of the lawsuits and government investigations or inquiries related to the Cyber Incident, see Item 7, *"Management's Discussion and Analysis of Financial Condition and Results of Operations"* and *Note 16. Commitments and Contingencies* in the *Notes to Consolidated Financial Statements* in Item 8 of Part II of this Annual Report on Form 10-K, which description is incorporated herein by reference.

In addition, from time to time, we have been and may be involved in other legal proceedings and claims arising in our ordinary course of business. Other than with respect to the Cyber Incident, neither we nor any of our subsidiaries is a party to, and none of our respective property is the subject of, any material legal proceeding. However, the outcome of any other legal proceedings and claims brought against us are subject to significant uncertainty. Therefore, if one or more of these legal matters were resolved against us in the same reporting period for amounts in excess of management's expectations, our consolidated financial statements for a particular period could be materially adversely affected.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market Information

Our common stock is listed on the New York Stock Exchange, or NYSE, under the symbol "SWI."

On February 14, 2024, the last reported sales price of our common stock on the NYSE was $12.89 per share and, as of February 12, 2024, there were 39 holders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of our stockholders, this number is not representative of the total number of stockholders represented by these stockholders of record.

Effective July 30, 2021, we effected a 2:1 reverse stock split of our common stock. As a result of the reverse stock split, all share and per share figures contained herein have been retroactively restated as if the reverse stock split occurred at the beginning of the periods presented.

Dividend Policy

On July 30, 2021, our board of directors declared a special cash dividend (the "Special Dividend"), to be paid following the effectiveness of, and after giving effect to, the reverse stock split, equal to $1.50 per share of common stock issued and outstanding as of August 9, 2021. The Special Dividend in the aggregate amount of $237.2 million was paid on August 24, 2021.

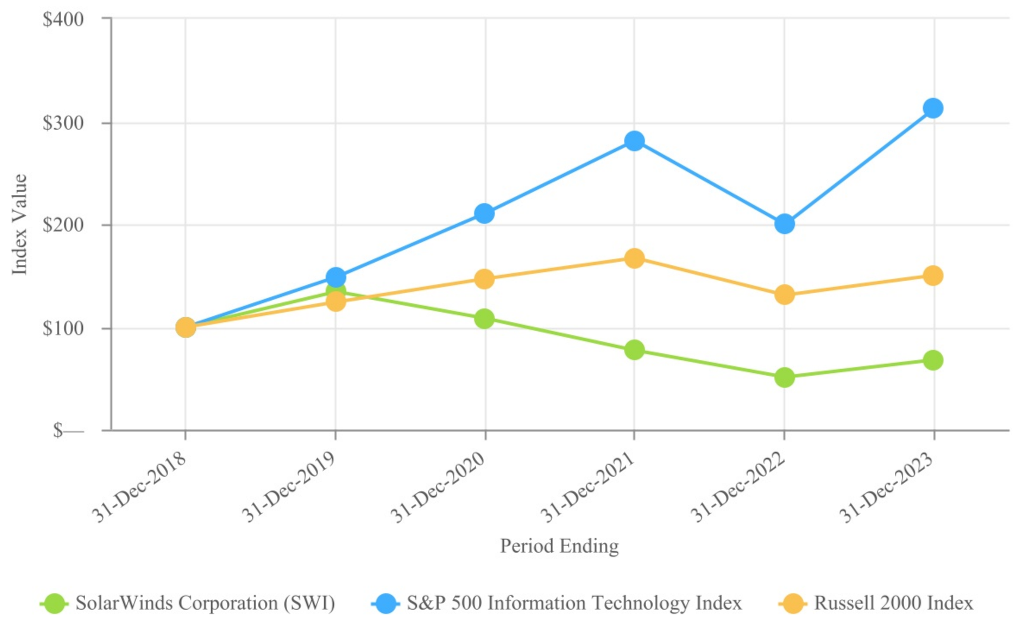
Since the Special Dividend paid in connection with the Separation, we have not declared or paid any cash dividends on our common stock. Neither Delaware law nor our restated charter requires our board of directors to declare dividends on our common stock. Any future determination to declare cash dividends on our common stock will be made at the discretion of our board of directors and will depend on a number of factors, including our financial condition, results of operations, our level of indebtedness and restrictions imposed by our credit agreement, general business conditions and other factors that our board of directors may deem relevant.

Performance Graph

The graph set forth below compares the cumulative total stockholder return on our common stock for the five-year period between December 31, 2018 and December 31, 2023, with the cumulative total return of (i) the Russell 2000 Index and (ii) the S&P 500 Information Technology Index (the "Industry Index"). The graph assumes the investment of $100 at market close on December 31, 2018 in our common stock, the Russell 2000 Index and the S&P 500 Information Technology Index, and assumes the reinvestment of dividends, if any. Note that historic stock price performance is not necessarily indicative of future stock price performance.

The spin-off of N-able, Inc. on July 19, 2021 is reflected as a special dividend in calculating the SolarWinds Corporation cumulative total shareholder return. Shareholders of SolarWinds Corporation received one share of N-able, Inc. for every two shares of SolarWinds Corporation common stock in the Separation. The special dividend per share was based on the July 19, 2021 opening price of one share of N-able, Inc. common stock, which was $13.00, adjusted for the distribution ratio.

The information contained in the Stock Performance Graph shall not be deemed to be soliciting material or to be filed with the SEC nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or the Exchange Act, except to the extent we specifically incorporate it by reference into such filing.



ITEM 6. [RESERVED]

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes thereto included elsewhere in this report. In addition to historical consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially and adversely from those anticipated in the forward-looking statements. Please see the sections entitled "Special Note Regarding Forward-Looking Statements" and "Risk Factors" above for a discussion of the uncertainties, risks and assumptions associated with these statements.

Overview

SolarWinds is a leading provider of simple, powerful and secure observability and IT management software. We offer full-stack observability solutions designed to provide organizations worldwide, regardless of type, size, or complexity, with a comprehensive and unified view of today's modern, distributed and hybrid network environments.

Our products are designed to monitor and manage networks, systems, databases and applications across on-premises, multi-cloud and hybrid IT environments. Most of our offerings are purpose-built on the SolarWinds Platform so our customers can easily purchase and deploy our products individually or as an integrated offering as their needs evolve. We utilize a cost-efficient, integrated global product development model and have expanded our offerings over time through both organic development and strategic acquisitions. We currently derive our revenue from a combination of subscription revenue from the sale of observability, database, application performance management and service desk products, and license and maintenance revenue from the sale of our on-premises network, systems, storage and database management perpetual license products. Over time, we intend to grow our subscription revenue by focusing more on selling subscriptions over perpetual licenses, which we call our subscription-first approach.

On February 5, 2016, we were acquired by affiliates of Silver Lake Group, L.L.C. and Thoma Bravo, LLC in a take private transaction, or the Take Private. We applied purchase accounting on the date of the Take Private. In October 2018, we completed our initial public offering, or IPO, and once again become a publicly traded company.

Impacts of Macroeconomic Conditions

As a global company, we are subject to negative impacts and risks related to prevailing macroeconomic conditions and significant events with macroeconomic impacts, including, but not limited to, the wars in Ukraine and Israel, rising escalations in the Middle East, geopolitical tensions involving China, market conditions related to inflation, fluctuating foreign currency exchange rates, changes in interest rates, uncertainty over liquidity concerns in the broader financial services industry, supply chain and energy markets disruption issues and the effects of the COVID pandemic. We have suspended all of our business activities in Russia and Belarus, but such suspension has not had, and we do not expect it to have, a material impact on our financial results. In addition, although we have operations in Israel, we do not expect the ongoing war to have a material impact on our operations or our financial results given our operations in Israel do not currently constitute a material portion of our development operations. Foreign currency exchange rate fluctuations during the prior year negatively impacted our revenues and may continue to impact our revenues. In addition, rising interest rates have increased our borrowing expense under our credit agreement, and if rates continue to rise, our borrowing costs may continue to increase. We continuously monitor the direct and indirect impacts of these events on our business and financial results, as well as the overall global economy, and we anticipate that these macroeconomic events could continue to negatively impact our results of operation. See Part I, Item 1A "Risk Factors" in this Annual Report on Form 10-K for further discussion of the possible impacts of these macroeconomic conditions on our business and financial results.

Cyber Incident

As previously disclosed, we were the victim of a cyberattack on our Orion Software Platform and internal systems, or the "Cyber Incident." We, together with our partners, have undertaken extensive measures to investigate, contain, eradicate, and remediate the Cyber Incident. In addition, as part of our "Secure by Design" initiative, we continue to work with industry experts to implement enhanced security practices designed to further strengthen and protect our products and environment against these and other types of attacks in the future.

Expenses

Expenses incurred related to the Cyber Incident include costs to investigate and remediate the Cyber Incident, costs of lawsuits and investigations related thereto, including settlement costs, and legal and other professional services which are expensed as incurred, as well as estimated loss contingencies. We expect to continue to incur additional legal and other professional services costs and expenses associated with the Cyber Incident in future periods as we defend ourselves in litigation with the SEC, and such costs and expenses could be material. We have exhausted our insurance coverage under our applicable insurance policies and will therefore be required to pay for such costs without reimbursement. We expect to recognize these expenses as services are received. See *Note 16. Commitments and Contingencies* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional information regarding expenses incurred related to the Cyber Incident.

Our “Secure by Design” initiatives, which include costs to enhance our security measures across our systems and our software development and build environments, continue to be included in our ongoing research and development expense, as well as general and administrative expense.

Litigation, Claims and Government Investigations

As a result of the Cyber Incident, we are subject to several lawsuits and investigations or inquiries as described in Part I, Item 1A. *Risk Factors – Risks Related to Our Technology, Cybersecurity and the Cyber Incident* and *Note 16. Commitments and Contingencies* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K.

Business Highlights

Below are our key business highlights for the year ended December 31, 2023 as compared to the year ended December 31, 2022.

Annual Recurring Revenue (ARR)

We use Subscription Annual Recurring Revenue, or Subscription ARR, and Total Annual Recurring Revenue, or Total ARR, to better understand and assess the performance of our business, as our mix of revenue generated from recurring revenue has increased in recent years. Subscription ARR and Total ARR each provides a normalized view of customer retention, renewal and expansion, as well as growth from new customers. Subscription ARR and Total ARR should each be viewed independently of revenue and deferred revenue and are not intended to be combined with or to replace either of those items.

	As of December 31,		Year-over-Year Growth
	2023	2022	
	(in thousands, except percentages)		
Subscription ARR[1]	$ 233,176	$ 174,508	33.6 %
Total ARR[2]	684,118	635,900	7.6 %

(1) Subscription ARR represents the annualized recurring value of all active subscription contracts at the end of a reporting period.

(2) Total ARR represents the sum of Subscription ARR and the annualized value of all maintenance contracts related to perpetual licenses active at the end of a reporting period assuming those contracts are renewed at their existing terms.

The growth in Subscription ARR was primarily driven by sales of our time-based subscription offerings as a result of customers transitioning to our subscription products and pricing models, including our SolarWinds Hybrid Cloud Observability, as well as sales of our database monitoring and service desk subscription solutions. Total ARR increased primarily due to the growth in Subscription ARR, partially offset by a decline in the annualized value of maintenance contracts as a result of lower new perpetual license sales and the impact of customers transitioning to our subscription offerings.

Customers

Our approach allows us to both sell to a broad group of potential customers and close large transactions with significant customers. As of December 31, 2023, we had over 300,000 customers. While some customers may spend as little as $100 with us over a twelve-month period, we had 945 customers that spent more than $100,000 with us for the year ended December 31, 2023, as compared to 889 customers for the year ended December 31, 2022.

As we continue our transition to a subscription-first approach, we will no longer provide the number of customers who spent more than $100,000 with us during the period and going forward will instead provide the number of customers with Total ARR greater than $100,000. We believe this metric better represents our progress toward developing and expanding our relationships with our new and existing customers as Total ARR provides a better indicator of the performance of our recurring business as we transition to a subscription model. As of December 31, 2023, we had 979 customers with Total ARR over $100,000, as compared to 853 and 785 customers as of December 31, 2022 and 2021, respectively.

We define customers as individuals or entities that have purchased one or more of our products under a unique customer identification number since our inception for our perpetual license products and individuals or entities that have an active subscription for at least one of our subscription products. Each unique customer identification number constitutes a separate customer regardless of the amount purchased. We may have multiple purchasers of our products within a single organization, each of which may be assigned a unique customer identification number and deemed a separate customer.

Components of Our Results of Operations

Revenue

Our revenue consists of recurring revenue and perpetual license revenue.

- *Recurring Revenue.* The significant majority of our revenue is recurring and consists of subscription and maintenance revenue.
    - *Subscription Revenue.* We primarily derive subscription revenue from fees received for subscriptions to our SaaS offerings and our time-based subscription offerings. We recognize revenue for SaaS offerings, including our SolarWinds Observability solution, ratably over the subscription term once the service is made available to the customer or when we have the right to invoice services performed. We also offer time-based subscription offerings for our SolarWinds Hybrid Cloud Observability solution along with many of our products historically sold as perpetual licenses, such as our network, systems and database management products, to give customers additional flexibility when purchasing our products. Revenue for our time-based subscription offerings, including multi-year arrangements, is recognized upfront upon delivery of the on-premise software license and ratably over the contract period for the related support. We generally invoice our time-based subscription agreements in advance at the beginning of the subscription period and invoice our SaaS offerings over the subscription period on either a monthly or annual basis and to a lesser extent, monthly based on usage. Our subscription revenue grows as customers transition to our subscription model, add new subscription products, upgrade the capacity level of their existing subscription products or increase the usage of their subscription products. In addition, while the majority of our contracts include annual subscription periods, subscription revenue is impacted by the timing, duration and volume of multi-year time-based subscription arrangements sold during a period, which impacts the amount of revenue recognized upfront and may cause subscription revenue to fluctuate.
    - *Maintenance Revenue.* We derive maintenance revenue from the sale of maintenance services associated with our perpetual license products. Perpetual license customers pay for maintenance services based on the products they have purchased. We recognize maintenance revenue ratably on a daily basis over the contract period. Our maintenance revenue grows when we renew existing maintenance contracts and add new perpetual license customers, and as existing customers add new products. In addition, we typically implement annual price increases for our maintenance services. We also include professional services and other revenue in maintenance revenue, which is generally recognized as delivered.
- *License Revenue.* We derive license revenue from sales of perpetual licenses of our on-premise network, systems, storage and database management products to new and existing customers. We include one year of maintenance services as part of our customers' initial license purchase. License revenue is recognized upfront upon delivery of the electronic license key. We allocate revenue to the license component based upon our estimated standalone selling prices, which is derived by evaluating our historical pricing and discounting practices in observable bundled transactions.

Our continued efforts to increase sales of our subscription offerings as part of our subscription-first approach has impacted the mix of license and recurring revenue. As we introduce new subscription offerings and incentivize our sales teams to focus on more subscription sales, we expect a continued shift in our revenue mix each quarter as existing customers transition to, and new customers purchase, our subscription offerings. However, due to uncertainty regarding the level of customer adoption of our subscription offerings, the timing and impact of this transition are difficult to predict at this time. While we encourage customers to transition to our subscription offerings, we do not require them to do so, and we plan to continue to sell perpetual licenses and renew maintenance services for our network, systems and database management products. Our license sales and maintenance renewals may decline or fluctuate in future periods as customers transition to our subscription offerings.

Cost of Revenue

- *Cost of Recurring Revenue.* Cost of recurring revenue primarily consists of technical support personnel costs, public cloud infrastructure and hosting fees, amortization of capitalized software development costs related to our hosted solutions and an allocation of overhead costs for our subscription offerings and maintenance services. Allocated costs consist of certain facilities, depreciation, benefits and IT costs allocated based on headcount. We expect our public cloud infrastructure and hosting fees and amortization of capitalized software development costs to increase as we expand our subscription-based offerings.
- *Amortization of Acquired Technologies.* Amortization of acquired technologies consists of amortization related to capitalized costs of technologies acquired, including those acquired in connection with the Take Private.

Operating Expenses

Operating expenses consists of sales and marketing, research and development and general and administrative expenses, as well as amortization of acquired intangibles and goodwill impairment charges. Generally, personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, sales commissions, stock-based compensation and an allocation of overhead costs based on headcount. The total number of employees as of December 31, 2023 was 2,103, as compared to 2,305 as of December 31, 2022. During 2023, as part of our ongoing efforts to improve our operating margins, we completed certain restructuring activities, resulting in lease impairment charges and other costs incurred in connection with the exiting of certain leased facilities and other contracts, as well as costs related to headcount reductions.

While we are focused on disciplined expense management, we expect our operating expenses to increase in absolute dollars as we make long-term investments in our business, including continued product development, increasing our selling efforts toward enterprise customers and expanding our routes to market. Our operating expenses in future periods also may increase in absolute dollars and fluctuate as a percentage of revenue as a result of any further decisions to increase our investment in our business or any future acquisitions. Our stock-based compensation expense has increased due to equity awards granted to our employees and directors, and we intend to continue to grant equity awards which will result in additional stock-based compensation expense in future periods.

- *Sales and Marketing.* Sales and marketing expenses primarily consist of related personnel costs, including our sales, marketing and maintenance renewal and subscription retention teams. Sales and marketing expenses also includes the cost of digital marketing programs such as paid search, search engine optimization and management, website maintenance and design, and costs related to our channel marketing programs. As part of our ongoing efforts to improve our operating margins, we have and expect to continue to invest selectively in our marketing programs as we look to optimize our sales and marketing productivity while expanding our routes to market. We have made investments to increase our sales and marketing operations internationally and expect continued focus on our international sales and global brand awareness.
- *Research and Development.* Research and development expenses primarily consist of related personnel costs for our product development employees and executives and, to a lesser extent, contractor fees. We expect to continue to grow our research and development organization, particularly internationally. We capitalize certain research and development costs related to developing new functionality for our solutions that are hosted and accessed by our customers on a subscription basis, which may cause our research and development expense to fluctuate from period to period.
- *General and Administrative.* General and administrative expenses primarily consist of personnel costs for our executive, finance, legal, human resources and other administrative personnel, general restructuring costs, certain Cyber Incident costs, professional fees, certain non-cash impairment charges and other general corporate expenses. The Cyber Incident has resulted in increased general and administrative

expenses which we expect to continue, although expenses may fluctuate from period to period depending on the timing of related activities.

- *Amortization of Acquired Intangibles.* We amortize to operating expenses the capitalized costs of intangible assets acquired in connection with the Take Private and our other acquisitions.
- *Goodwill Impairment.* We review our goodwill for impairment on an annual basis or more frequently if there is an indication that impairment may exist. An impairment of goodwill is recognized when the carrying value of our reporting unit exceeds its fair value as of the assessment date and recorded as a separate component of operating expenses.

Interest Expense, Net

Interest expense, net consists of interest paid and accrued on our debt and amortization of debt discount and issuance costs, offset by interest income earned on our cash and cash equivalents. The interest expense on our debt has increased due to increases in interest rates and as a result of the increase in applicable margins resulting from the refinancing of our debt in November 2022. Since the borrowings outstanding under our credit agreement currently bear interest at variable rates, we expect our interest expense may continue to fluctuate as a result of changes in interest rates.

Other Income (Expense), Net

Other income (expense), net primarily consists of gains (losses) resulting from changes in exchange rates on foreign currency denominated accounts, losses on extinguishment of debt and other non-operating income (expense).

Foreign Currency

As a global company, we face exposure to adverse movements in foreign currency exchange rates. Fluctuations in foreign currencies impact the amount of total assets, liabilities, revenue, operating expenses and cash flows that we report for our foreign subsidiaries upon the translation of these amounts into U.S. dollars. See "Item 7A: *Quantitative and Qualitative Disclosures About Market Risk*" for additional information on how foreign currency impacts our financial results.

Income Tax Expense (Benefit)

Income tax expense (benefit) consists of domestic and foreign corporate income taxes related to the sale of products. The tax rate on income earned by our North American entities is generally higher than the tax rate on income earned by our international entities. We expect the income earned by our international entities to grow over time as a percentage of total income, which could result in a decline in our effective income tax rate. However, our effective tax rate will be affected by many other factors including changes in tax laws, regulations or rates, new interpretations of existing laws or regulations, shifts in the allocation of income earned throughout the world and changes in overall levels of income before tax.

Comparison of the Years Ended December 31, 2023 and 2022

Revenue

	Year Ended December 31,				
	2023		2022		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Subscription	$ 234,236	30.9 %	$ 167,676	23.3 %	$ 66,560
Maintenance	462,072	60.9	458,901	63.8	3,171
Total recurring revenue	696,308	91.8	626,577	87.1	69,731
License	62,432	8.2	92,790	12.9	(30,358)
Total revenue	$ 758,740	100.0 %	$ 719,367	100.0 %	$ 39,373

Total revenue increased $39.4 million, or 5.5%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, due to an increase in recurring revenue, primarily driven by an increase in subscription revenue, partially offset by a decrease in license revenue, as we continue to transition to a subscription model. Revenue from North America was approximately 69% of total revenue for both the years ended December 31, 2023 and 2022. Other than the United States, no single country accounted for 10% or more of our total revenue during these periods. We expect our international total revenue to increase slightly as a percentage of total revenue as we expand our international sales and marketing efforts.

Recurring Revenue

Subscription Revenue. Subscription revenue increased $66.6 million, or 39.7%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, primarily due to sales of our time-based subscription offerings resulting from customers transitioning to our subscription pricing model and new customers purchasing our subscription solutions, including our SolarWinds Hybrid Cloud Observability solution. The increase in subscription revenue also includes a $9.3 million increase resulting from an increase in sales of multi-year time-based arrangements during the year. Our subscription revenue increased as a percentage of our total revenue for the year ended December 31, 2023 compared to the year ended December 31, 2022.

Our net retention rate for our subscription products was as follows:

	Trailing Twelve-Months Ended December 31,		
	2023	2022	2021
Net retention rate(1)	97 %	96 %	97 %

(1) Beginning in the fourth quarter of 2023, we now define net retention rate as the current period Subscription ARR for customers that had Subscription ARR one year ago, divided by their prior year Subscription ARR. Current period Subscription ARR includes expansion and is net of any downgrades or churn over the last 12 months. Prior period Subscription ARR includes all Subscription ARR in the prior year ending balance. We previously calculated net retention rate using implied monthly subscription revenue, but we believe using Subscription ARR better measures our success in retaining and growing revenue from our existing customers. Net retention rates for the prior years have been recalculated to conform to the current calculation method.

Maintenance Revenue. Maintenance revenue increased $3.2 million, or 0.7%, for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increased sales of professional services and other revenue, as well as increased maintenance renewal rates and the impact of price increases on our maintenance services, partially offset by the impact on maintenance revenue from conversions of existing customers to subscription-based products.

Our maintenance renewal rate for our perpetual license products was as follows:

	Trailing Twelve-Months Ended December 31,	
	2023	2022
Maintenance renewal rate(1)	96 %	93 %

(1) Maintenance renewal rate represents the sales of maintenance services for all existing maintenance contracts expiring in a period, divided by the sum of previous sales of maintenance services corresponding to those services expiring in the current period. The calculation of maintenance renewal rate only includes customers renewing maintenance contracts and excludes all customers that transition from maintenance contracts to subscription offerings. Sales of maintenance services includes sales of maintenance renewals for a previously purchased product and the amount allocated to maintenance revenue from a license purchase.

License Revenue

License revenue decreased $30.4 million, or 32.7%, primarily due to the impact of customers transitioning to our subscription offerings including an increase in the subscription sales of our SolarWinds Hybrid Cloud Observability and products that have historically been sold only as perpetual licenses.

Cost of Revenue

	Year Ended December 31,				
	2023		2022		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Cost of recurring revenue	$ 73,636	9.7 %	$ 67,848	9.4 %	$ 5,788
Amortization of acquired technologies	13,369	1.8	28,135	3.9	(14,766)
Total cost of revenue	$ 87,005	11.5 %	$ 95,983	13.3 %	$ (8,978)

Total cost of revenue decreased $9.0 million, or 9.4%, primarily due to a $14.8 million decrease in amortization of certain intangible assets, primarily those acquired in connection with the Take Private, being fully amortized, partially offset by a $5.8 million increase in cost of recurring revenue. The increase in cost of recurring revenue was primarily due to increases in amortization of capitalized software development costs of $4.9 million, public cloud infrastructure and hosting fees related to our subscription offerings of $1.7 million and contract services of $1.5 million. These increases were partially offset by decreases in personnel costs of $1.7 million and depreciation expense of $0.6 million.

Operating Expenses

	Year Ended December 31,				
	2023		2022		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Sales and marketing	$ 249,265	32.9 %	$ 257,746	35.8 %	$ (8,481)
Research and development	100,173	13.2	92,330	12.8	7,843
General and administrative	123,716	16.3	149,461	20.8	(25,745)
Amortization of acquired intangibles	48,208	6.4	52,325	7.3	(4,117)
Goodwill impairment	—	—	891,101	123.9	(891,101)
Total operating expenses	$ 521,362	68.7 %	$ 1,442,963	200.6 %	$ (921,601)

Sales and Marketing. Sales and marketing expenses decreased $8.5 million, or 3.3%, primarily due to decreases in marketing program costs of $14.2 million and consulting and contract services of $1.0 million, partially offset by increases in stock-based compensation expense of $3.8 million and restructuring charges primarily related to severance expense of $2.7 million.

Research and Development. Research and development expenses increased $7.8 million, or 8.5%, primarily due to increases in hosting fees related to the development of our offerings of $3.5 million, personnel costs of $2.9 million and restructuring charges primarily related to severance expense of $2.1 million. These increases were partially offset by a decrease in travel expenses of $0.6 million.

General and Administrative. General and administrative expenses decreased $25.7 million, or 17.2%, primarily due to decreases in costs related to the Cyber Incident, net of insurance proceeds, of $28.0 million and non-cash impairment charges related to the SolarWinds trade name recognized in the prior year of $15.2 million. In addition, insurance costs and professional fees decreased $2.7 million, certain debt refinancing costs decreased $1.7 million and the provision for losses on accounts receivable decreased $1.3 million. These decreases were partially offset by an increase in restructuring charges of $13.8 million, primarily related to lease impairment charges and accelerated depreciation expense of leasehold improvements in connection with the exiting of certain leased facilities, along with an increase in personnel costs of $11.0 million, which includes increases in stock-based compensation expense of $5.1 million and incentive bonus expense of $5.0 million.

Amortization of Acquired Intangibles. Amortization of acquired intangibles decreased $4.1 million, or 7.9%, for the year ended December 31, 2023 compared to the year ended December 31, 2022, primarily due to certain acquired intangibles being fully amortized during the period.

Goodwill Impairment. As a result of the interim goodwill impairment analyses performed in the prior year, we recognized $891.1 million in non-cash goodwill impairment charges. See *Note 2. Summary of Significant*

Accounting Policies in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional information.

Interest Expense, Net

	Year Ended December 31,				
	2023		2022		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Interest expense, net	$ (115,848)	(15.3)%	$ (83,374)	(11.6)%	$ (32,474)

Interest expense, net increased by $32.5 million, or 38.9%, in the year ended December 31, 2023 compared to the year ended December 31, 2022. Interest expense, net includes $122.9 million and $89.1 million of interest expense and $7.1 million and $5.7 million of interest income for the years ended December 31, 2023 and 2022, respectively.

The increase in interest expense was primarily due to increases in interest rates on our debt, including an increase in applicable margins resulting from the refinancing of our debt in November 2022. The weighted-average effective interest rate on our debt during the year ended December 31, 2023 was 8.9% compared to 4.6% for the year ended December 31, 2022. See *Note 10. Debt* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional information regarding our debt.

Other Income (Expense), Net

	Year Ended December 31,				
	2023		2022		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Other income (expense), net	$ (386)	(0.1)%	$ (5,074)	(0.7)%	$ 4,688

Other income (expense), net increased by $4.7 million in the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in losses on extinguishment of debt of $3.8 million resulting from the refinancing of our debt in November 2022, along with the impact of changes in exchange rates on foreign currency denominated accounts.

Income Tax Expense (Benefit)

	Year Ended December 31,				
	2023		2022		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Income (loss) before income taxes	$ 34,139	4.5 %	$ (908,027)	(126.2)%	$ 942,166
Income tax expense (benefit)	43,248	5.7	21,386	3.0	21,862
Effective tax rate	126.7 %		(2.4)%		129.1 %

Our income tax expense for the year ended December 31, 2023 was $43.2 million as compared to $21.4 million for the year ended December 31, 2022. The effective tax rate increased to 126.7% for the period primarily due to an increase in the valuation allowance resulting from deduction limitations associated with the U.S. Tax Act. Additionally, the effective tax rate for the year ended December 31, 2022 included the effect of the goodwill impairment, which is primarily non-deductible for income tax purposes. Refer to *Note 15. Income Taxes* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional discussion about our income taxes.

Comparison for the Years Ended December 31, 2022 and 2021

For a comparison of our results of operations for the years ended December 31, 2022 and 2021, see Part II, Item 7. “Management's Discussion and Analysis of Financial Condition and Results of Operations” of our annual report on Form 10-K for the year ended December 31, 2022, filed with the SEC on February 22, 2023.

Non-GAAP Financial Measures

In addition to financial measures prepared in accordance with GAAP, we use certain non-GAAP financial measures to clarify and enhance our understanding, and aid in the period-to-period comparison, of our performance. We believe that these non-GAAP financial measures provide supplemental information that is meaningful when assessing our operating performance because they exclude the impact of certain amounts that our management and board of directors do not consider part of core operating results when assessing our operational performance, allocating resources, preparing annual budgets and determining compensation. Accordingly, these non-GAAP financial measures may provide insight to investors into the motivation and decision-making of management in operating the business. Investors are encouraged to review the reconciliation of each of these non-GAAP financial measures to its most comparable GAAP financial measure included below. Unless noted otherwise, all non-GAAP financial measures are derived from our GAAP financial measures from continuing operations.

While we believe that these non-GAAP financial measures provide useful supplemental information, non-GAAP financial measures have limitations and should not be considered in isolation from, or as a substitute for, their most comparable GAAP measures. These non-GAAP financial measures are not prepared in accordance with GAAP, do not reflect a comprehensive system of accounting and may not be comparable to similarly titled measures of other companies due to potential differences in their financing and accounting methods, the book value of their assets, their capital structures, the method by which their assets were acquired and the manner in which they define non-GAAP measures. Items such as the amortization of intangible assets, stock-based compensation expense and related employer-paid payroll taxes, acquisition related adjustments, the Cyber Incident and restructuring charges and goodwill and indefinite-lived intangible asset impairment, as well as the related tax impacts of these items can have a material impact on our GAAP financial results.

Non-GAAP Operating Income and Non-GAAP Operating Margin

We provide non-GAAP operating income and related non-GAAP operating margin that exclude such items as amortization of acquired intangible assets, stock-based compensation expense and related employer-paid payroll taxes, acquisition and other costs, restructuring costs, Cyber Incident costs, goodwill and indefinite-lived intangible asset impairment and the write-down of deferred revenue related to purchase accounting. Management believes these measures are useful for the following reasons:

- *Amortization of Acquired Intangible Assets.* We provide non-GAAP information that excludes expenses related to purchased intangible assets associated with our acquisitions, including our acquired technologies. We believe that eliminating this expense from our non-GAAP measures is useful to investors, because the amortization of acquired intangible assets can be inconsistent in amount and frequency and is significantly impacted by the timing and magnitude of our acquisition transactions, which also vary in frequency from period to period. Accordingly, we analyze the performance of our operations in each period without regard to such expenses.
- *Stock-Based Compensation Expense and Related Employer-Paid Payroll Taxes.* We provide non-GAAP information that excludes expenses related to stock-based compensation and related employer-paid payroll taxes. We believe that the exclusion of stock-based compensation expense provides for a better comparison of our operating results to prior periods and to our peer companies as the calculations of stock-based compensation vary from period to period and company to company due to different valuation methodologies, subjective assumptions and the variety of award types. Employer-paid payroll taxes on stock-based compensation is dependent on our stock price and the timing of the taxable events related to the equity awards, over which our management has little control, and does not correlate to the core operation of our business. Because of these unique characteristics of stock-based compensation and related employer-paid payroll taxes, management excludes these expenses when analyzing the organization’s business performance.
- *Acquisition and Other Costs.* We exclude certain expense items resulting from acquisitions, such as legal, accounting and advisory fees, changes in fair value of contingent consideration, costs related to integrating the acquired businesses, deferred compensation, severance and retention expense. In addition, we exclude certain other non-recurring costs, including internal investigation costs. We consider these adjustments, to

some extent, to be unpredictable and dependent on a significant number of factors that are outside of our control. Furthermore, acquisitions result in operating expenses that would not otherwise have been incurred by us in the normal course of our organic business operations. We believe that providing these non-GAAP measures that exclude acquisition and other costs, allows users of our financial statements to better review and understand the historical and current results of our continuing operations, and also facilitates comparisons to our historical results and results of less acquisitive peer companies, both with and without such adjustments.

- *Restructuring Costs.* We provide non-GAAP information that excludes restructuring costs such as severance, lease impairments and other costs incurred in connection with the exiting of certain leased facilities and other contracts as they relate to our corporate restructuring and exit activities and costs related to the separation of employment with executives of the Company. In addition, we exclude certain costs resulting from the spin-off of N-able, Inc. These costs are inconsistent in amount and are significantly impacted by the timing and nature of these events. Therefore, although we may incur these types of expenses in the future, we believe that eliminating these costs for purposes of calculating the non-GAAP financial measures facilitates a more meaningful evaluation of our operating performance and comparisons to our past operating performance.
- *Cyber Incident Costs.* We exclude certain expenses resulting from the Cyber Incident. Expenses include costs to investigate and remediate the Cyber Incident, costs of lawsuits and investigations related thereto, including settlement costs and legal and other professional services, consulting services being provided to customers at no charge and estimated loss contingencies. Cyber Incident costs have been provided net of expected and received insurance reimbursements, although the timing of recognizing insurance reimbursements has differed from the timing of recognizing the associated expenses. We expect to incur significant legal and other professional services expenses associated with the Cyber Incident in future periods. The Cyber Incident results in operating expenses that would not have otherwise been incurred by us in the normal course of our organic business operations. We believe that providing non-GAAP measures that exclude these costs facilitates a more meaningful evaluation of our operating performance and comparisons to our past operating performance. We continue to invest significantly in cybersecurity and expect to make additional investments. These estimated investments are in addition to the Cyber Incident costs and not included in the net Cyber Incident costs reported.
- *Goodwill and Indefinite-Lived Intangible Asset Impairment.* We provide non-GAAP information that excludes non-cash goodwill and indefinite-lived intangible asset impairment charges. We believe that providing these non-GAAP measures that exclude these non-cash impairment charges allows users of our financial statements to better review and understand our historical and current operating results. In addition, as a significant portion of our goodwill and indefinite-lived intangible assets were derived from the Take Private transaction, providing these non-GAAP measures that exclude these impairment charges facilitates comparisons to our peers who may not have undertaken a transformational acquisition resulting in significant goodwill and indefinite-lived intangible assets.

	Year Ended December 31,		
	2023	2022	2021
	(in thousands, except margin data)		
GAAP operating income (loss) from continuing operations	$ 150,373	$ (819,579)	$ (32,871)
Impact of purchase accounting	—	—	134
Stock-based compensation expense and related employer-paid payroll taxes	77,403	68,021	59,943
Amortization of acquired technologies	13,369	28,135	159,973
Amortization of acquired intangibles	48,208	52,325	55,314
Acquisition and other costs	2,612	540	1,696
Restructuring costs	20,248	1,563	11,415
Cyber Incident costs, net	(2,084)	26,233	33,114
Goodwill and indefinite-lived intangible asset impairment	—	906,350	—
Non-GAAP operating income	$ 310,129	$ 263,588	$ 288,718
GAAP operating margin	19.8 %	(113.9)%	(4.6)%
Non-GAAP operating margin	40.9 %	36.6 %	40.2 %

Adjusted EBITDA and Adjusted EBITDA Margin

We regularly monitor adjusted EBITDA and adjusted EBITDA margin, as it is a measure we use to assess our operating performance. We define adjusted EBITDA as net income or loss, excluding amortization of acquired intangible assets and developed technology, depreciation expense, stock-based compensation expense and related employer-paid payroll taxes, restructuring costs, acquisition and other costs, Cyber Incident costs, net, goodwill and indefinite-lived intangible asset impairment charges, interest expense, net, debt-related costs including fees related to our credit agreements, debt extinguishment and refinancing costs, unrealized foreign currency (gains) losses, the write-down of deferred revenue related to purchase accounting, and income tax expense (benefit). We define adjusted EBITDA margin as adjusted EBITDA divided by total revenue. Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are: although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements; adjusted EBITDA excludes the impact of restructuring impairment charges related to exited leased facilities which may continue to require future cash rent payments; adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs; adjusted EBITDA does not reflect the significant interest expense, or the cash requirements necessary to service interest or principal payments, on our debt; adjusted EBITDA does not reflect tax payments that may represent a reduction in cash available to us; and other companies, including companies in our industry, may calculate adjusted EBITDA differently, which reduces its usefulness as a comparative measure.

Because of these limitations, you should consider adjusted EBITDA alongside other financial performance measures, including net income (loss) and our other GAAP results. In evaluating adjusted EBITDA, you should be aware that in the future we may incur expenses that are the same as or similar to some of the adjustments in this presentation. Our presentation of adjusted EBITDA should not be construed as an inference that our future results will be unaffected by the types of items excluded from the calculation of adjusted EBITDA. Adjusted EBITDA is not a presentation made in accordance with GAAP and the use of the term varies from others in our industry.

	Year Ended December 31,		
	2023	2022	2021
	(in thousands, except margin data)		
Net loss from continuing operations	$ (9,109)	$ (929,413)	$ (64,470)
Amortization and depreciation	80,023	94,981	230,135
Income tax expense (benefit)	43,248	21,386	(32,469)
Interest expense, net	115,848	83,374	64,522
Impact of purchase accounting	—	—	134
Unrealized foreign currency (gains) losses	(14)	1,525	(1,479)
Acquisition and other costs	2,612	540	1,696
Debt-related costs(1)	400	5,909	378
Stock-based compensation expense and related employer-paid payroll taxes	77,403	68,021	59,943
Restructuring costs(2)	20,248	1,523	11,794
Cyber Incident costs, net	(2,084)	26,233	33,114
Goodwill and indefinite-lived intangible asset impairment	—	906,350	—
Adjusted EBITDA	$ 328,575	$ 280,429	$ 303,298
Adjusted EBITDA margin	43.3 %	39.0 %	42.2 %

(1) Debt-related costs include fees related to our credit agreements of $0.4 million, $2.1 million and $0.4 million for the years ended December 31, 2023, 2022 and 2021, respectively, and loss on extinguishment of debt of $3.8 million for the year ended December 31, 2022.

(2) Restructuring costs for the year ended December 31, 2023 include $13.6 million of non-cash lease impairment and accelerated depreciation expense incurred in connection with the exiting of certain leased facilities, as well as costs related to headcount reductions. Restructuring costs for the year ended December 31, 2021 are primarily related to costs of exiting and terminating facility lease commitments and certain costs resulting from the spin-off of N-able, Inc. reported in continuing operations.

Liquidity and Capital Resources

Cash and cash equivalents and short-term investments were $289.2 million as of December 31, 2023. Our international subsidiaries held approximately $38.1 million of cash and cash equivalents, of which 45.9% were held in Euros. We intend either to invest our foreign earnings permanently in foreign operations or to remit these earnings to our U.S. entities in a tax-free manner with the exception of immaterial state income taxes. The U.S. Tax Act imposed a mandatory transition tax on accumulated foreign earnings and eliminates U.S. federal income taxes on foreign subsidiary distribution.

Our primary source of cash for funding operations and growth has been through cash provided by operating activities. We continue to evaluate the nature and extent of the impact of the Cyber Incident to our business and financial position. Although we recorded an immaterial estimated loss contingency, the amount of loss that might result from adverse judgments, settlements, penalties, or other resolution of the SEC Complaint or any other proceedings is unknown. Such potential payments, if great enough, could have an adverse effect on our liquidity. We believe that our existing cash and cash equivalents, our cash flows from operating activities and our borrowing capacity under our credit facilities will be sufficient to fund our operations, fund required debt repayments and meet our commitments for capital expenditures for at least the next 12 months.

Although we are not currently a party to any material definitive agreement regarding potential investments in, or acquisitions of, complementary businesses, applications or technologies, we may enter into these types of arrangements, which could reduce our cash and cash equivalents, require us to seek additional equity or debt financing or repatriate cash generated by our international operations that could cause us to incur withholding taxes on any distributions. Additional funds from financing arrangements may not be available on terms favorable to us or at all.

Indebtedness

As of December 31, 2023, our total indebtedness was approximately $1.2 billion, with up to $130.0 million of available borrowings under our revolving credit facility. See *Note 10. Debt* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional information regarding our debt.

First Lien Credit Agreement

The First Lien Credit Agreement, as amended, provides for a senior secured revolving credit facility in an aggregate principal amount of $130.0 million, or the Revolving Credit Facility, consisting of a $17.5 million U.S. dollar revolving credit facility, or the U.S. Dollar Revolver, and a $112.5 million multicurrency revolving credit facility, or the Multicurrency Revolver. The Revolving Credit Facility includes a $35.0 million sublimit for the issuance of letters of credit. The First Lien Credit Agreement also contains a term loan facility (which we refer to as the First Lien Term Loan, and together with the Revolving Credit Facility, as the First Lien Credit Facilities) in an amended aggregate principal amount of $1,245.0 million.

The First Lien Credit Agreement provides us the right to request additional commitments for new incremental term loans and revolving loans, in an aggregate principal amount not to exceed (a) the greater of (i) $400.0 million and (ii) 100% of our consolidated EBITDA, as defined in the First Lien Credit Agreement (calculated on a pro forma basis), for the most recent four fiscal quarter period, or the First Lien Fixed Basket, *plus* (b) the amount of certain voluntary prepayments of the First Lien Credit Facilities, *plus* (c) an unlimited amount subject to pro forma compliance with a first lien net leverage ratio not to exceed 4.75 to 1.00.

In January 2024, we entered into Amendment No. 7 to the First Lien Credit Agreement to, among other things, (i) refinance the first lien term loans, (ii) decrease the applicable margin for the existing first lien term loans with respect to secured overnight financing rate (“SOFR”) borrowings and (iii) remove the first lien net leverage ratio component of determining the applicable margin.

The First Lien Term Loan requires equal quarterly repayments equal to 0.25% of the amended principal amount and has a final maturity date of February 5, 2027. We have made voluntary debt prepayments in prior periods and may continue to evaluate opportunities for additional debt prepayments in order to reduce our levels of gross debt.

Summary of Cash Flows

Summarized cash flow information is as follows:

	Year Ended December 31,	
	2023	2022
	(in thousands)	
Net cash provided by operating activities	$ 183,465	$ 154,506
Net cash provided by (used in) investing activities	4,440	(54,313)
Net cash used in financing activities	(24,648)	(709,195)
Effect of exchange rate changes on cash and cash equivalents	(300)	(1,376)
Net increase (decrease) in cash and cash equivalents	$ 162,957	$ (610,378)

Operating Activities

Our primary source of cash from operating activities is cash collections from our customers. We expect cash inflows from operating activities to be affected by the timing of our sales. Our primary uses of cash from operating activities are for personnel-related expenditures, and other general operating expenses, as well as payments related to taxes, interest and facilities.

For 2023 compared to 2022, the increase in net cash provided by operating activities was primarily due to the increase in our operating income, adjusted for non-cash items, and changes in our operating assets and liabilities for the period. The net cash inflow resulting from the changes in our operating assets and liabilities was $13.9 million for the year ended December 31, 2023 as compared to $7.0 million for the year ended December 31, 2022 and was primarily due to the timing of sales, cash payments and receipts.

Cash flow from operating activities during 2023 includes $50.0 million in insurance proceeds received from our directors and officers liability insurance related to the Cyber Incident. These proceeds were partially offset by the $26.0 million consolidated putative class action lawsuit settlement payment made during the period, along with other costs related to the Cyber Incident. In addition, cash flow from operating activities was impacted by a $32.2 million increase in cash paid for interest due to increases in interest rates, partially due to the increase in applicable interest rate margins resulting from the refinancing of our debt in November 2022, and an increase of $7.8 million in cash paid for income taxes.

Investing Activities

Investing cash flows consist primarily of purchases and maturities of investments, additions to capitalized software development costs, capital expenditures, purchases of intangible assets and cash used for acquisitions. Our capital expenditures primarily relate to purchases of computers, servers and equipment and leasehold improvements, to support our domestic and international office locations.

Net cash provided by investing activities increased in 2023 compared to 2022 primarily due to a decrease in purchases of short-term investments of $58.7 million, partially offset by a decrease in maturities of $9.1 million. Additionally, the prior period included the acquisition of Monalytic, Inc., a monitoring, analytics and professional services company.

Financing Activities

Financing cash flows consist primarily of repayments associated with our long-term debt, the proceeds from the issuance of shares of common stock through equity incentive plans and the repurchase of common stock to satisfy withholding tax requirements related to the settlement of restricted stock units, including our performance-based restricted stock units.

Net cash used in financing activities decreased in 2023 compared to 2022 primarily due to a $655.0 million decrease in repayments of debt under our First Lien Term Loan. In the year ended December 31, 2022, in addition to our quarterly principal payments, we made voluntary principal payments of $300.0 million. In addition, in connection with our debt refinancing in November 2022, we made a principal payment of $349.4 million and paid debt discount and issuance costs of $36.9 million.

During the years ended December 31, 2023 and 2022, we withheld and retired shares of common stock to satisfy $18.8 million and $11.1 million, respectively, of statutory withholding tax requirements that we pay in cash to the appropriate taxing authorities on behalf of our employees related to the settlement of restricted and performance stock units during the relevant periods. These shares are treated as common stock repurchases in our consolidated financial statements.

Contractual and Other Obligations

Our material cash requirements from contractual and other obligations as of December 31, 2023 include our debt obligations, lease obligations, purchase obligations, long-term purchase commitments and tax obligations.

Debt Obligations. Our debt obligations relate to maturities and cash interest payments of our First Lien Term Loan with a maturity date of February 5, 2027. See *Note 10. Debt* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional information regarding our debt including our future minimum principal payments under the First Lien Term Loan.

Borrowings under our First Lien Term Loan bear interest at a floating rate and require quarterly cash interest payments. Based upon the interest rate in effect on December 31, 2023 of 9.11%, we estimated our total cash interest expense to be approximately $348.7 million, of which $114.0 million would be paid in the next 12 months. In January 2024, we entered into Amendment No. 7 to the First Lien Credit Agreement to, among other things, decrease the applicable margin for our existing First Lien Term Loans from 3.75% to 3.25% with respect to SOFR borrowings. As a result, we estimate the decrease in applicable margin will decrease our total cash interest expense to be approximately $329.9 million, of which $108.1 million will be paid in the next 12 months.

Lease Obligations. Our short-term and long-term lease obligations relate to maturities of our operating lease liabilities. See *Note 8. Leases* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional details including the maturities of our operating lease liabilities as of December 31, 2023.

Purchase Obligations. Our purchase obligations primarily represent outstanding purchase orders for purchases of software subscriptions, license and support fees, contractor, legal and accounting fees, marketing activities, corporate health insurance costs, and public cloud infrastructure and hosting fees entered into in the ordinary course of business. The terms of our purchase orders generally allow us the option to cancel and adjust terms based on our business needs prior to the delivery of goods or performance of services. As of December 31, 2023, we had approximately $65.2 million in outstanding purchase obligations, of which $63.4 million require us to make cash payments in the next 12 months.

Long-term Purchase Commitments. Our long-term purchase commitments relate to non-cancellable minimum or fixed purchase commitments for third-party cloud infrastructure platform and hosting services. As of December 31, 2023, we had approximately $96.8 million in outstanding long-term purchase commitments which requires us to make cash payments over the next 4 years. See *Note 16. Commitments and Contingencies* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional discussion of our non-cancellable purchase commitments.

Tax Obligations. Our tax obligations include periodic tax payments and the provisional one–time transition tax as a result of the U.S. Tax Act which we elected to pay over eight years through 2026. As of December 31, 2023, our remaining transition tax payable was $54.5 million, of which $20.8 million will be paid in the next 12 months. In addition, other long-term obligations on our balance sheet as of December 31, 2023 include non-current income tax liabilities of $19.6 million, which are primarily related to unrecognized tax benefits and related accrued interest and penalties. It is reasonably possible that the amount of unrecognized tax benefit and related accrued interest and penalties could decrease by up to $13.8 million within the next 12 months as we expect to conclude the IRS examination for the tax years 2013 through the period ending February 2016. See *Note 15. Income Taxes* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional details.

During the year ended December 31, 2023, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in conformity with GAAP and require our management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The Cyber Incident has had and may continue to have an adverse effect on our business, results of operations and financial condition. We have made estimates of the impact of the Cyber Incident and macroeconomic conditions within our financial statements as of and for the year ended December 31, 2023 which included, but were not limited to, loss contingencies, the carrying values of goodwill and intangible assets and other long-lived assets, valuation allowances for tax assets and revenue recognition. Actual results may differ from these estimates, and such estimates may change if the underlying conditions or assumptions change. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected, perhaps materially.

In many cases, the accounting treatment of a particular transaction is specifically dictated by GAAP and does not require management's judgment in its application, while in other cases, management's judgment is required in selecting among available alternative accounting standards that allow different accounting treatment for similar transactions. We believe that these accounting policies requiring significant management judgment and estimates are critical to understanding our historical and future performance, as these policies relate to the more significant areas of our financial results. These critical accounting policies are:

- the valuation of goodwill, intangibles, long-lived assets and contingent consideration;
- revenue recognition;
- stock-based compensation;
- income taxes; and
- loss contingencies.

Acquisitions

The purchase price of our acquired businesses is allocated to the assets acquired and the liabilities assumed based on their estimated fair values, with the excess recorded as goodwill. The fair value of identifiable intangible assets is based on significant judgments made by management. We typically engage third-party valuation appraisal firms to assist us in determining the fair values and useful lives of the assets acquired. The valuation estimates and assumptions are based on historical experience and information obtained from management, and also include, but are not limited to, future expected cash flows earned from the intangible asset and discount rates applied in determining the present value of those cash flows. Unanticipated events and circumstances may occur that could affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill

Our goodwill was derived from the Take Private transaction and acquisitions where the purchase price exceeded the fair value of the net identifiable assets acquired. Goodwill is tested for impairment at least annually on October 1st or more frequently if events or circumstances indicate it is more likely than not that the fair value of our reporting unit is less than its carrying value. See *Note 2. Summary of Significant Accounting Policies* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for additional discussion regarding our goodwill impairment analysis and evaluation of goodwill impairment indicators.

For qualitative "Step 0" analyses, the factors we assess include changes in our market capitalization, along with events and circumstances that could affect the significant inputs used to determine the fair value of our reporting unit, including the significance of the amount of excess fair value over carrying value, consistency of operating margins and cash flows, budgeted-to-actual performance, overall change in economic climate, changes in the industry and competitive environment, key management turnover, and earnings quality and sustainability. If, based on a review of qualitative factors, it is more likely than not that the fair value of a reporting unit is less than its carrying value we perform "Step 1" of the goodwill impairment test (or "quantitative assessment") by comparing the fair value of a reporting unit with its carrying amount.

When performing a "Step 1" quantitative assessment, we utilize a combination of both an income and market approach and apply a 66.7% weighting to the income approach and a 33.3% weighting to the market approach to arrive at the total fair value of our reporting unit used for impairment testing. We apply a greater weighting to the income approach as we believe the income approach is a better indicator of fair value by using projected cash flows of the reporting unit being valued. The income approach utilizes a discounted cash flow method which is based on the present value of projected cash flows which reflects our assumptions regarding revenue growth rates, operating margin, risk-adjusted discount rate, terminal period growth rate, economic and market trends and other expectations about the anticipated operating results of our reporting unit. Under the market approach, we estimate the fair value based on market multiples of revenue derived from comparable publicly traded companies with operating characteristics similar to our reporting unit. In evaluating the estimates derived by the market-based approach, we make judgments in the selection of the peer group and valuation multiples used as they apply to the reporting unit. After determining the fair value of our reporting unit, we reconcile the fair value of the reporting unit to the Company's market capitalization as of the date of the analysis.

As of June 30, 2022 and September 30, 2022, after considering all available evidence in our evaluation of goodwill impairment indicators, we determined it appropriate to perform interim quantitative assessments of our reporting unit, for which we engaged a third-party valuation specialist to assist. For the June 30, 2022 and September 30, 2022 analyses, we utilized the methodology discussed above and weighted-average costs of capital of 11.5% and 12.5% as our discount rate, respectively. As a result of the interim goodwill impairment analyses, our reporting unit was determined to have a carrying value that exceeded its fair value and therefore, non-cash goodwill impairment charges of $612.4 million and $278.7 million were recognized in our consolidated statements of operations for the three months ended June 30, 2022 and September 30, 2022, respectively. Prior to performing the goodwill impairment analyses, we performed quantitative assessments of our indefinite-lived intangible assets and recoverability tests of our long-lived assets as discussed below. Throughout the period since the quantitative analysis on September 30, 2022, we have experienced increases in our market capitalization and determined there were no indicators of impairment that would negatively impact the fair value of our reporting unit.

On October 1, 2023, we performed our annual goodwill impairment analysis and assessed the above qualitative factors, including the increase in our market capitalization, along with several events and circumstances that could affect the significant inputs used to determine the fair value of our reporting unit. As of the date of our annual impairment analysis and throughout the fourth quarter of 2023, there were no unanticipated changes or negative indicators in the qualitative factors or valuation assumptions that would negatively impact the fair value of our reporting unit, including with respect to our assumptions regarding revenue growth rates, operating margin, risk-adjusted discount rate, terminal period growth rate, economic and market trends and other expectations about the anticipated operating results of our reporting unit. As such, we determined there were no indicators of impairment and that it was more likely than not that the fair value of our reporting unit was greater than its carrying value at October 1, 2023 and December 31, 2023.

Fair value determination of our reporting unit requires considerable judgment and is sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the goodwill impairment tests will prove to be an accurate prediction of future results. Examples of events or circumstances that could reasonably be expected to negatively affect the underlying key assumptions and ultimately impact the estimated fair value of our reporting unit may include such items as: (i) volatility in the equity and debt markets or other macroeconomic factors, (ii) an increase in the weighted-average cost of capital due to further increases in interest rates, (iii) timing and success of new products introduced in our evolution from monitoring to observability, (iv) the ongoing impact of the Cyber Incident including higher than estimated costs to respond and adverse loss exposure from claims, fines or penalties resulting from government litigation; and (v) fluctuations in foreign currency exchange rates that may negatively impact our reported results of operations. Accordingly, if our current cash flow assumptions are not realized, we experience sustained declines in our stock price or market capitalization, or there are declines in the market multiples used in our analysis, it is possible that an impairment charge may be recorded in the future, which could be material.

Identifiable Intangible and Long-lived Assets

Indefinite-lived Intangible Assets

We review our indefinite-lived intangible assets for impairment annually, in the fourth quarter, or more frequently if a triggering event occurs. In the event that a triggering event exists, we perform a quantitative assessment utilizing a relief from royalty valuation method. Significant estimates and assumptions included in the relief from royalty method are expectations of revenue growth rates, and selection of royalty rate and discount rate.

As of June 30, 2022 and September 30, 2022, we performed quantitative assessments of our indefinite-lived intangible assets and utilized a discount rate of 11.5% and 12.5%, respectively, and a royalty rate of 0.7%. For both analyses, we determined the estimated fair value of the SolarWinds trade name, recorded in connection with the Take Private, was less than its carrying value. As a result, we recorded non-cash impairment charges of $9.4 million and $5.9 million for the three months ended June 30, 2022 and September 30, 2022, respectively, which are included in general and administrative expenses in our consolidated statements of operations.

On October 1, 2023, we performed a qualitative assessment of our indefinite-lived intangible assets and determined there were no indicators that our indefinite-lived assets were impaired.

Long-lived Assets

We evaluate long-lived assets, including finite-lived intangible assets and other assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Events or changes in circumstances that could result in an impairment review include, but are not limited to, significant underperformance relative to historical or projected future operating results, significant changes in the manner of use of the acquired assets or the strategy for our overall business, and significant negative industry or economic trends. If an event occurs that would cause us to revise our estimates and assumptions used in analyzing the value of our property and equipment, operating lease assets, capitalized software development costs or our finite-lived intangibles and other assets, that revision could result in a non-cash impairment charge that could have a material impact on our financial results.

As of June 30, 2022 and September 30, 2022, prior to performing the goodwill impairment analyses discussed above, we performed recoverability tests of our long-lived assets, including finite-lived intangible assets, by comparing the net book value of our long-lived assets or asset groups, to the future undiscounted net cash flows attributable to such assets, and determined no impairment was required. As of December 31, 2023, we assessed the qualitative factors above and determined it was more likely than not the carrying value of our long-lived assets were recoverable.

Revenue Recognition

We primarily generate revenue from fees received for subscriptions, the sale of maintenance services associated with our perpetual license products and the sale of perpetual license products. We recognize revenue related to contracts from customers when we transfer promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This is determined by following a five-step process which includes (1) identifying the contract with a customer, (2) identifying the performance obligations in the contract, (3) determining the transaction price, (4) allocating the transaction price and (5) recognizing revenue when or as we satisfy a performance obligation.

We identify performance obligations in a contract based on the goods and services that will be transferred to the customer that are identifiable from other promises in the contract, or distinct. If not considered distinct, the promised goods or services are combined with other goods or services and accounted for as a combined performance obligation. Determining the distinct performance obligations in a contract requires judgment. Our performance obligations primarily include perpetual and time-based licenses, maintenance support including unspecified upgrades or enhancements to new versions of our software products, SaaS offerings and professional services.

We allocate the transaction price of the contract to each distinct performance obligation based on a relative standalone selling price basis. Determining standalone selling prices for our performance obligations requires judgment and are based on multiple factors including, but not limited to historical selling prices and discounting practices for products and services, internal pricing policies and pricing practices in different regions and through different sales channels. For our SaaS subscription offerings and maintenance services, our standalone selling prices are generally observable using standalone sales or renewals. For our perpetual and time-based license products, given there are no observable standalone sales, we estimate our standalone selling prices by evaluating our historical pricing and discounting practices in observable bundled transactions. We review the standalone selling price for our performance obligations periodically and update, if needed, to ensure that the methodology utilized reflects our current pricing practices.

Stock-Based Compensation

We recognize stock-based compensation for our stock-based incentive awards and shares issued under our employee stock purchase plan (“ESPP”). We have granted our employees, directors and certain contractors stock-based incentive awards. Our stock awards vest on service-based or performance-based vesting conditions. These awards are primarily in the form of restricted stock units and, to a lesser extent, stock options and restricted stock. We measure stock-based compensation expense for all share-based awards granted based on the estimated fair value of those awards on the date of grant. The fair value of restricted stock unit awards and restricted stock awards is determined using the fair market value of our common stock on the date of grant less any amount paid at the time of the grant, or intrinsic value. The fair values of stock option awards and ESPP purchase rights are estimated using a Black-Scholes valuation model.

We use various assumptions that can be subjective in estimating the fair value of options and ESPP purchase rights using the Black-Scholes option model including expected dividend yield, volatility, risk-free rate of return and expected life. In addition, we estimate the probability of the performance-based awards vesting upon the achievement of the specified performance targets at each reporting period. Based on the extent to which the performance targets are achieved, shares vest at a specified percent of the target award amount. Changes in the probability estimates associated with performance-based awards are accounted for in the period of change using a cumulative expense adjustment to apply the new probability estimate. In any period in which we determine the achievement of the performance targets is not probable, we cease recording compensation expense and all previously recognized compensation expense for the performance-based award is reversed. Because the actual number of shares to be awarded is not known until the end of the performance period, the actual compensation expense related to these awards could differ from our current expectations.

Income Taxes

We use the liability method of accounting for income taxes as set forth in the authoritative guidance for accounting for income taxes. Under this method, we recognize deferred tax liabilities and assets for the expected future tax consequences of temporary differences between the respective carrying amounts and tax basis of our assets and liabilities.

In calculating our effective tax rate, we make judgments regarding certain tax positions, including the timing and amount of deductions and allocations of income among various tax jurisdictions.

The guidance requires us to identify, evaluate and measure all uncertain tax positions taken or to be taken on tax returns and to record liabilities for the amount of these positions that may not be sustained, or may only partially be sustained, upon examination by the relevant taxing authorities. Although we believe that our estimates and judgments are reasonable, actual results may differ from these estimates. Some or all of these judgments are subject to review by the taxing authorities. To the extent that the actual results of these matters is different than the amounts recorded, such differences will affect our effective tax rate.

We establish valuation allowances when necessary to reduce deferred tax assets to the amounts expected to be realized. On a quarterly basis, we evaluate the need for, and the adequacy of, valuation allowances based on the expected realization of our deferred tax assets. The factors used to assess the likelihood of realization include reversal of taxable temporary differences, carryback potential, our latest forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. As of December 31, 2023, we had a valuation allowance of $78.1 million.

Loss Contingencies

We account for claims and contingencies in accordance with authoritative guidance that requires we record an estimated loss from a claim or loss contingency when information available prior to issuance of our consolidated financial statements indicates a liability has been incurred at the date of our consolidated financial statements and the amount of the loss can be reasonably estimated. If we determine that it is reasonably possible but not probable that an asset has been impaired or a liability has been incurred, we disclose the amount or range of estimated loss if material or that the loss cannot be reasonably estimated. We record loss recovery assets related to recognized loss contingencies for expected insurance proceeds we believe are probable of recovery. Accounting for claims and contingencies requires us to use our judgment in both the determination of probability and the determination as to whether the amount of an exposure or recovery is reasonably estimable. We consult with legal counsel on those issues related to litigation and seek input from other experts and advisors with respect to matters in the ordinary course of business.

We are involved in various lawsuits, claims, investigations and proceedings related to the Cyber Incident. Litigation is inherently unpredictable. However, we believe we have valid defenses with respect to legal matters pending against us. Nevertheless, cash flows or results of operations could be materially affected in any particular period by the resolution of one or more of these contingencies. See *Note 16. Commitments and Contingencies* in the *Notes to Consolidated Financial Statements* included in Item 8 of Part II of this Annual Report on Form 10-K for a discussion of contingencies.

Recent Accounting Pronouncements

See *Note 2. Summary of Significant Accounting Policies* in the *Notes to Consolidated Financial Statements* in Item 8 of Part II of this Annual Report on Form 10-K, for a full description of recent accounting pronouncements, if any, which is incorporated herein by reference.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We had cash and cash equivalents of $284.7 million and $121.7 million at December 31, 2023 and 2022, respectively. We also had short-term investments classified as available-for-sale securities of $4.5 million and $27.1 million at December 31, 2023 and 2022, respectively. Our cash and cash equivalents consist primarily of bank demand deposits and money market funds and investments with original maturities of three months or less. Our short-term investments consist primarily of corporate bonds, commercial paper and U.S. Treasury securities. We hold cash and cash equivalents and short-term investments for working capital purposes. Our investments are made for capital preservation purposes, and we do not enter into investments for trading or speculative purposes.

We do not have material exposure to market risk with respect to our cash and cash equivalents, as these consist primarily of highly liquid investments purchased with original maturities of three months or less at December 31, 2023. We seek to maintain our cash deposits and invest in money market funds with multiple financial institutions of reputable credit and perform periodic evaluations of the relative credit standing of the financial institutions. We believe the financial institutions that hold our cash and cash equivalents are financially sound and minimal credit risk exists with respect to our cash.

Our portfolio of available-for-sale securities classified as investments is subject to market risk due to changes in interest rates. Changes in interest rates could impact our future investment income, or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates. However, because we classify our investment securities as “available for sale,” no gains or losses are recognized due to changes in interest rates unless such securities are sold prior to maturity or declines in fair value are determined to be other-than-temporary.

We had total indebtedness with an outstanding principal balance of $1.24 billion at December 31, 2023 and $1.25 billion at December 31, 2022. Borrowings outstanding under our credit agreement bear interest at variable rates equal to applicable margins plus specified base rates or a secured overnight financing rate (“SOFR”) with a 0% floor. As of December 31, 2023 and 2022, the annual rate on borrowings was 9.11% and 8.32%, respectively. If there was a hypothetical 100 basis point increase in interest rates, the annual impact to interest expense would be approximately $12.4 million. This hypothetical change in interest expense has been calculated based on the borrowings outstanding at December 31, 2023 and a 100 basis point per annum change in interest rate applied over a one-year period.

We do not have material exposure to fair value market risk with respect to our total long-term outstanding indebtedness which consists of $1.24 billion U.S. dollar term loans as of December 31, 2023, not subject to market pricing. See *Note 10. Debt* in the *Notes to Consolidated Financial Statements* in Item 8 of Part II of this Annual Report on Form 10-K for additional information regarding our debt.

Foreign Currency Exchange Risk

As a global company, we face exposure to adverse movements in foreign currency exchange rates related to our revenue and operating expenses denominated in currencies other than the United States Dollar, or USD. Specifically, we have exposure as a result of selling in multiple currencies and our results of operations and cash flows are subject to fluctuations in the following currencies: the Euro, British Pound Sterling and Australian Dollar against the USD. In addition, we primarily have operations in the United States, Europe, Singapore, the Philippines, and India and a portion of our operating expenses are denominated in foreign currencies. These exposures may change over time as business practices evolve and economic conditions change, including as a result of additional headcount in foreign countries, the impact of the wars in Ukraine and Israel, inflation, or changes in interest rates on the global economy. Changes in foreign currency exchange rates could have an adverse impact on our financial results and cash flows.

Our consolidated statements of operations are translated into USD at the average exchange rates in each applicable period. Our international revenue, operating expenses and significant balance sheet accounts denominated in currencies other than the USD primarily flow through our European subsidiaries, which have the Euro as their functional currency. This results in a two-step currency exchange process wherein the currencies other than the Euro are first converted into the functional currency and then translated into USD for our consolidated financial statements. As an example, revenue for sales in Australia is translated from the Australian Dollar to the Euro and then into the USD.

Our statement of operations and balance sheet accounts are also impacted by the re-measurement of non-functional currency transactions such as intercompany loans, cash accounts held by our overseas subsidiaries, accounts receivable denominated in foreign currencies, deferred revenue and accounts payable denominated in foreign currencies.

Foreign Currency Transaction Risk

Our foreign currency exposures typically arise from selling annual and multi-year maintenance contracts and subscriptions in multiple currencies, accounts receivable, intercompany transfer pricing arrangements and other intercompany transactions. Our foreign currency management objective is to minimize the effect of fluctuations in foreign exchange rates on selected assets or liabilities without exposing us to additional risk associated with transactions that could be regarded as speculative.

We utilize purchased foreign currency forward contracts to minimize our foreign exchange exposure on certain foreign balance sheet positions denominated in currencies other than the Euro. We do not enter into any derivative financial instruments for trading or speculative purposes. Our objective in managing our exposure to foreign currency exchange rate fluctuations is to reduce the impact of adverse fluctuations in such exchange rates on our earnings and cash flow. The notional amounts and currencies underlying our foreign currency forward contracts will fluctuate period to period as they are principally dependent on the balances of the balance sheet positions that are denominated in currencies other than the Euro held by our global entities. There can be no assurance that our foreign currency hedging activities will substantially offset the impact of fluctuation in currency exchange rates on our results of operations and functional positions. As of December 31, 2023 and 2022, we did not have any forward contracts outstanding and while we do not have a formal policy to settle all derivatives prior to the end of each quarter, our current practice is to do so. The effect of derivative instruments on our consolidated statements of operations was insignificant for the years ended December 31, 2023 and 2022.

We are exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments, but we do not expect any counterparties to fail to meet their obligations given their high credit ratings. In addition, we diversify this risk across several counterparties and actively monitor their ratings.

Foreign Currency Translation Risk

Fluctuations in foreign currencies impact the amount of total assets, liabilities, revenue, operating expenses and cash flows that we report for our foreign subsidiaries upon the translation of these amounts into U.S. dollars. If there is a change in foreign currency exchange rates, the amounts of assets, liabilities, revenue, operating expenses and cash flows that we report in U.S. dollars for foreign subsidiaries that transact in international currencies may be higher or lower to what we would have reported using a constant currency rate. To the extent the U.S. dollar strengthens against foreign currencies, the translation of these foreign currency denominated transactions results in reduced assets, liabilities, revenue, operating expenses and cash flows for our international operations. Similarly, our assets, liabilities, revenue, operating expenses and cash flows will increase for our international operations if the U.S. dollar weakens against foreign currencies. The conversion of the foreign subsidiaries' financial statements into U.S. dollars will also lead to remeasurement gains and losses recorded in income, or translation gains or losses that are recorded as a component of accumulated other comprehensive income (loss).

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of SolarWinds Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of SolarWinds Corporation and its subsidiaries (the “Company”) as of December 31, 2023 and 2022, and the related consolidated statements of operations, of comprehensive income (loss), of stockholders’ equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated 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 - Standalone Selling Price for Transactions with Multiple Performance Obligations

As described in Note 2 to the consolidated financial statements, the Company recognized $62.4 million, $462.1 million and $234.2 million of license, maintenance and subscription revenue, respectively, during the year ended December 31, 2023. The Company's performance obligations include perpetual and time-based licenses and maintenance support including unspecified upgrades or enhancements to new versions of its software products. Management allocates the transaction price of the contract to each distinct performance obligation in the contract based on a relative standalone selling price. Determining standalone selling prices for the Company's performance obligation requires judgment and is based on multiple factors including, but not limited to, historical selling prices and discounting practices for products and services, internal pricing policies and pricing practices in different regions and through different sales channels.

The principal considerations for our determination that performing procedures relating to revenue recognition – standalone selling price for transactions with multiple performance obligations is a critical audit matter are the significant judgment by management when determining the standalone selling prices, which in turn led to significant auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to standalone selling prices used to allocate the transaction price of the contract to each distinct performance obligation in the contract.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's determination of standalone selling prices, including controls over the completeness and accuracy of the underlying data. These procedures also included, among others, testing management's process for determining the standalone selling prices. Testing management's process for determining the standalone selling prices involved (i) evaluating the appropriateness of the overall methodology used by management; (ii) evaluating the reasonableness of the segmentation considerations by product, sales channels and geography; and (iii) testing the completeness and accuracy of the historical selling prices and discounts.

/s/ PricewaterhouseCoopers LLP
Austin, Texas
February 16, 2024

We have served as the Company's auditor since 2004.

SolarWinds Corporation
Consolidated Balance Sheets
(In thousands, except share and per share information)

	December 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 284,695	$ 121,738
Short-term investments	4,477	27,114
Accounts receivable, net of allowances of $743 and $1,173 as of December 31, 2023 and 2022, respectively	103,455	100,204
Income tax receivable	459	987
Prepaid and other current assets	28,241	57,350
Total current assets	421,327	307,393
Property and equipment, net	19,669	26,634
Operating lease assets	43,776	61,418
Deferred taxes	133,224	134,922
Goodwill	2,397,545	2,380,059
Intangible assets, net	183,688	243,980
Other assets, net	51,686	45,600
Total assets	$ 3,250,915	$ 3,200,006
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 9,701	$ 14,045
Accrued liabilities and other	56,643	68,284
Current operating lease liabilities	14,925	15,005
Accrued interest payable	942	579
Income taxes payable	29,240	11,841
Current portion of deferred revenue	344,907	337,541
Current debt obligation	12,450	9,338
Total current liabilities	468,808	456,633
Long-term liabilities:		
Deferred revenue, net of current portion	42,070	38,945
Non-current deferred taxes	1,933	8,582
Non-current operating lease liabilities	49,848	59,235
Other long-term liabilities	55,278	74,193
Long-term debt, net of current portion	1,190,934	1,192,765
Total liabilities	1,808,871	1,830,353
Commitments and contingencies (*Note 16*)		
Stockholders' equity:		
Common stock, $0.001 par value: 1,000,000,000 shares authorized and 166,637,506 and 161,928,532 shares issued and outstanding as of December 31, 2023 and 2022, respectively	167	162
Preferred stock, $0.001 par value: 50,000,000 shares authorized and no shares issued and outstanding as of December 31, 2023 and 2022, respectively	—	—
Additional paid-in capital	2,688,854	2,627,370
Accumulated other comprehensive loss	(28,103)	(48,114)
Accumulated deficit	(1,218,874)	(1,209,765)
Total stockholders' equity	1,442,044	1,369,653
Total liabilities and stockholders' equity	$ 3,250,915	$ 3,200,006

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

SolarWinds Corporation
Consolidated Statements of Operations
(In thousands, except per share information)

	Year Ended December 31,		
	2023	**2022**	**2021**
Revenue:			
Subscription	$ 234,236	$ 167,676	$ 124,601
Maintenance	462,072	458,901	479,415
Total recurring revenue	696,308	626,577	604,016
License	62,432	92,790	114,616
Total revenue	758,740	719,367	718,632
Cost of revenue:			
Cost of recurring revenue	73,636	67,848	67,043
Amortization of acquired technologies	13,369	28,135	159,973
Total cost of revenue	87,005	95,983	227,016
Gross profit	671,735	623,384	491,616
Operating expenses:			
Sales and marketing	249,265	257,746	236,383
Research and development	100,173	92,330	101,813
General and administrative	123,716	149,461	130,977
Amortization of acquired intangibles	48,208	52,325	55,314
Goodwill impairment	—	891,101	—
Total operating expenses	521,362	1,442,963	524,487
Operating income (loss)	150,373	(819,579)	(32,871)
Other income (expense):			
Interest expense, net	(115,848)	(83,374)	(64,522)
Other income (expense), net	(386)	(5,074)	454
Total other expense	(116,234)	(88,448)	(64,068)
Income (loss) before income taxes	34,139	(908,027)	(96,939)
Income tax expense (benefit)	43,248	21,386	(32,469)
Net loss from continuing operations	(9,109)	(929,413)	(64,470)
Net income from discontinued operations, net of tax	—	—	13,062
Net loss	$ (9,109)	$ (929,413)	$ (51,408)
Net loss from continuing operations available to common stockholders	$ (9,109)	$ (929,413)	$ (64,630)
Net income from discontinued operations available to common stockholders	$ —	$ —	$ 13,062
Net income (loss) available to common stockholders per share:			
Basic loss from continuing operations per share	$ (0.06)	$ (5.78)	$ (0.41)
Basic earnings from discontinued operations per share	—	—	0.08
Basic loss per share	$ (0.06)	$ (5.78)	$ (0.33)
Diluted loss from continuing operations per share	$ (0.06)	$ (5.78)	$ (0.41)
Diluted earnings from discontinued operations per share	—	—	0.08
Diluted loss per share	$ (0.06)	$ (5.78)	$ (0.33)
Weighted-average shares used to compute net income (loss) available to common stockholders per share:			
Shares used in computation of basic earnings (loss) per share	164,631	160,841	158,040
Shares used in computation of diluted earnings (loss) per share	164,631	160,841	158,040

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

SolarWinds Corporation

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

	Year Ended December 31,		
	2023	2022	2021
Net loss	$ (9,109)	$ (929,413)	$ (51,408)
Other comprehensive income (loss):			
Foreign currency translation adjustment	19,893	(49,302)	(125,906)
Unrealized gain (loss) on investments, net of income tax expense (benefit) of $31 and $(31) for the years ended December 31, 2023 and 2022, respectively	118	(118)	—
Other comprehensive income (loss)	20,011	(49,420)	(125,906)
Comprehensive income (loss)	$ 10,902	$ (978,833)	$ (177,314)

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

SolarWinds Corporation

Consolidated Statements of Stockholders' Equity
(In thousands, except per share information)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2020	156,520	$ 157	$ 3,112,262	$ 127,212	$ (228,944)	$ 3,010,687
Foreign currency translation adjustment	—	—	—	(125,906)	—	(125,906)
Net loss	—	—	—	—	(51,408)	(51,408)
Comprehensive loss						(177,314)
Exercise of stock options	300	—	616	—	—	616
Restricted stock units issued, net of shares withheld for taxes	1,614	2	(13,993)	—	—	(13,991)
Issuance of stock	461	—	505	—	—	505
Issuance of stock under employee stock purchase plan	281	—	5,658	—	—	5,658
Distribution of N-able business	—	—	(366,483)	—	—	(366,483)
Special dividends paid ($1.50 per share)	—	—	(237,214)	—	—	(237,214)
Stock-based compensation	—	—	65,432	—	—	65,432
Balance at December 31, 2021	159,176	159	2,566,783	1,306	(280,352)	2,287,896
Foreign currency translation adjustment	—	—	—	(49,302)	—	(49,302)
Unrealized loss on investments, net of taxes	—	—	—	(118)	—	(118)
Net loss	—	—	—	—	(929,413)	(929,413)
Comprehensive loss						(978,833)
Exercise of stock options	53	—	59	—	—	59
Restricted stock units issued, net of shares withheld for taxes	2,326	3	(11,085)	—	—	(11,082)
Issuance of stock	62	—	241	—	—	241
Issuance of stock under employee stock purchase plan	312	—	3,151	—	—	3,151
Stock-based compensation	—	—	68,221	—	—	68,221
Balance at December 31, 2022	161,929	162	2,627,370	(48,114)	(1,209,765)	1,369,653
Foreign currency translation adjustment	—	—	—	19,893	—	19,893
Unrealized gain on investments, net of taxes	—	—	—	118	—	118
Net loss	—	—	—	—	(9,109)	(9,109)
Comprehensive income						10,902
Exercise of stock options	131	—	143	—	—	143
Restricted stock units issued, net of shares withheld for taxes	4,158	5	(18,835)	—	—	(18,830)
Issuance of stock	3	—	18	—	—	18
Issuance of stock under employee stock purchase plan	417	—	3,377	—	—	3,377
Stock-based compensation	—	—	76,781	—	—	76,781
Balance at December 31, 2023	166,638	$ 167	$ 2,688,854	$ (28,103)	$ (1,218,874)	$ 1,442,044

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

SolarWinds Corporation

Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2023	2022	2021
Cash flows from operating activities			
Net loss from continuing operations	$ (9,109)	$ (929,413)	$ (64,470)
Adjustments to reconcile net loss from continuing operations to net cash provided by operating activities:			
Depreciation and amortization	82,198	94,981	230,135
Goodwill and indefinite-lived intangible asset impairment	—	906,350	—
Provision for losses on accounts receivable	(389)	951	23
Stock-based compensation expense	75,727	67,050	58,763
Amortization of debt issuance costs	10,718	9,056	9,103
Loss on extinguishment of debt	—	3,822	—
Deferred taxes	(1,140)	(6,741)	(40,567)
(Gain) loss on foreign currency exchange rates	(14)	1,525	(1,479)
Lease impairment charges	11,392	—	—
Other non-cash (benefits) expenses	192	(30)	378
Changes in operating assets and liabilities, net of assets acquired and liabilities assumed in business combinations:			
Accounts receivable	(1,568)	(6,846)	(9,926)
Income taxes receivable	539	99	(281)
Prepaid and other assets	29,391	(28,898)	(13,965)
Accounts payable	(4,357)	6,751	(4,915)
Accrued liabilities and other	(15,339)	25,759	(11,047)
Accrued interest payable	362	426	(4)
Income taxes payable	(1,616)	(9,290)	(32,587)
Deferred revenue	6,389	19,689	(852)
Other long-term liabilities	89	(735)	(217)
Net cash provided by operating activities from continuing operations	183,465	154,506	118,092
Cash flows from investing activities			
Purchases of investments	(8,388)	(67,133)	—
Maturities of investments	30,535	39,633	—
Purchases of property and equipment	(4,353)	(7,463)	(9,252)
Capitalized software development costs	(13,674)	(13,037)	(4,406)
Purchases of intangible assets	(244)	(250)	(258)
Acquisitions, net of cash acquired	—	(6,500)	447
Other investing activities	564	437	—
Net cash provided by (used in) investing activities from continuing operations	4,440	(54,313)	(13,469)
Cash flows from financing activities			
Proceeds from issuance of common stock under employee stock purchase plan	3,377	3,151	5,658
Repurchase of common stock and incentive restricted stock	(18,830)	(11,130)	(14,228)
Exercise of stock options	143	59	616
Distribution from spin-off of discontinued operations, net	—	—	505,580
Dividends paid	—	—	(237,214)
Repayments of borrowings from credit agreement	(9,338)	(664,350)	(20,950)
Payment of debt discount and issuance costs	—	(36,925)	(324)
Net cash provided by (used in) financing activities from continuing operations	(24,648)	(709,195)	239,138

	Year Ended December 31,		
	2023	2022	2021
Effect of exchange rate changes on cash and cash equivalents from continuing operations	(300)	(1,376)	(4,355)
Cash flows of discontinued operations			
Operating activities of discontinued operations	—	—	39,040
Investing activities of discontinued operations	—	—	(15,003)
Financing activities of discontinued operations	—	—	(903)
Effect of exchange rate changes on cash and cash equivalents from discontinued operations	—	—	(922)
Net cash provided by discontinued operations	—	—	22,212
Net increase (decrease) in cash and cash equivalents	162,957	(610,378)	361,618
Cash and cash equivalents			
Beginning of period	121,738	732,116	370,498
End of period	$ 284,695	$ 121,738	$ 732,116
Supplemental disclosure of cash flow information			
Cash paid for interest	$ 111,861	$ 79,614	$ 56,053
Cash paid for income taxes	$ 40,964	$ 33,117	$ 43,864
Non-cash investing and financing transactions			
Stock-based compensation included in capitalized software development costs	$ 1,246	$ 1,171	$ 395

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

1. Organization and Nature of Operations

SolarWinds Corporation, a Delaware corporation, and its subsidiaries (“Company,” “we,” “us” and “our”) is a leading provider of simple, powerful and secure observability and information technology, or IT, management software. Our solutions are designed to give organizations worldwide, regardless of type, size, or complexity, with a comprehensive and unified view of today’s modern, distributed and hybrid network environments. Our business is focused on building products to enable technology professionals and leaders to securely monitor and manage the performance of their IT environments, whether they be on-premises, in the cloud or in hybrid deployments. Our approach has enabled us to serve the entire IT market and our customers include network and systems engineers, database administrators, storage administrators, DevOps, SecOps and service desk professionals. We sell our products for use in organizations across industries ranging in size from very small businesses to large enterprises.

In February 2016, we were acquired by affiliates of Silver Lake Group, L.L.C. and Thoma Bravo, LLC in a take private transaction, or the Take Private. We applied purchase accounting on the date of the Take Private which required all assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. In October 2018, we completed our initial public offering, or IPO. On July 19, 2021, we completed the separation and distribution of our managed service provider (“N-able”) business into a newly created and separately traded public company, N-able, Inc. ("Separation"). See *Note 3. Discontinued Operations* for additional information.

2. Summary of Significant Accounting Policies

Basis of Consolidation

The accompanying consolidated financial statements include the accounts of SolarWinds Corporation and the accounts of its wholly owned subsidiaries. We have eliminated all intercompany balances and transactions.

Reclassifications

Certain reclassifications have been made to prior periods' consolidated statements of cash flows to conform to the current period presentation. These reclassifications did not impact previously reported net income (loss), total assets or net operating, investing or financing cash flows.

Reverse Stock Split

Effective July 30, 2021, we effected a 2:1 reverse stock split of our common stock. As a result of the reverse stock split, all share and per share figures contained in the consolidated financial statements have been retroactively restated as if the reverse stock split occurred at the beginning of the periods presented.

Special Dividend

On July 30, 2021, our board of directors declared a special one-time cash dividend (the "Special Dividend"), to be paid following the effectiveness of, and after giving effect to, the reverse stock split, equal to $1.50 per share of common stock issued and outstanding as of August 9, 2021. The Special Dividend in the aggregate amount of $237.2 million was paid on August 24, 2021.

Use of Estimates

The preparation of financial statements in conformity with United States of America generally accepted accounting principles ("GAAP") requires our management to make estimates and assumptions that affect the reported amounts and the disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. The actual results that we experience may differ materially from our estimates. The accounting estimates that require our most significant, difficult and subjective judgments include:

- the valuation of goodwill, intangibles, long-lived assets and contingent consideration;
- revenue recognition;
- stock-based compensation;
- income taxes; and
- loss contingencies.

Foreign Currency Translation

The functional currency of our foreign subsidiaries is determined in accordance with authoritative guidance issued by the Financial Accounting Standards Board ("FASB"). We translate assets and liabilities for these subsidiaries at exchange rates in effect at the balance sheet date. We translate income and expense accounts for these subsidiaries at the average monthly exchange rates for the periods. We record resulting translation adjustments as a component of accumulated other comprehensive income (loss) within stockholders' equity. We record gains and losses from currency transactions denominated in currencies other than the functional currency as other income (expense) in our consolidated statements of operations. There were no equity transactions denominated in foreign currencies for the years ended December 31, 2023 and 2022. Local currency transactions of international subsidiaries that have the U.S. dollar as the functional currency are remeasured into U.S. dollars using current rates of exchange for monetary assets and liabilities and historical rates of exchange for non-monetary assets and liabilities.

Recently Adopted Accounting Pronouncements

During the year ended December 31, 2023, there have been no recently adopted accounting pronouncements that had a material impact to our financial positions, results of operations or cash flow.

New Accounting Pronouncements Not Yet Adopted

In November 2023, the FASB issued Accounting Standards Update ("ASU") No. 2023-07 "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures." The updated guidance expands segment disclosures by requiring additional disclosure of significant segment expenses included within segment profit or loss along with other segment information. The updated guidance is effective for public companies for fiscal years beginning after December 15, 2023, and for interim periods beginning after December 15, 2024, and early adoption is permitted. We currently operate as a single reportable segment and while we do not expect the adoption of this guidance to have a material impact on our consolidated financial statements, we will be required to provide enhanced segment disclosures beginning in our Annual Report for the fiscal year ended December 31, 2024 and subsequent interim periods.

In December 2023, the FASB issued ASU No. 2023-09 "Income Taxes (Topic 740): Improvements to Income Tax Disclosures" to expand the disclosure requirements for income taxes, specifically related to the rate reconciliation and income taxes paid. The updated guidance is effective for public companies for fiscal years beginning after December 15, 2024 and early adoption permitted. We currently do not expect that the adoption of this guidance will have a material impact on our consolidated financial statements.

Acquisitions

The purchase price of our acquired businesses is allocated to the assets acquired and the liabilities assumed based on their estimated fair values, with the excess recorded as goodwill. If applicable, we estimate the fair value of contingent consideration payments in determining the purchase price. During the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the fair value of the tangible and intangible assets acquired and liabilities assumed, including the deferred tax asset valuation allowances and acquired income tax uncertainties, with the corresponding offset to goodwill. We include the operating results of acquisitions in our consolidated financial statements from the effective date of the acquisitions. Acquisition related costs are expensed separately from the acquisition as incurred and are primarily included in general and administrative expenses in our consolidated statements of operations.

The fair value of identifiable intangible assets is based on significant judgments made by management. We typically engage third party valuation appraisal firms to assist us in determining the fair values and useful lives of the assets acquired. The valuation estimates and assumptions are based on historical experience and information obtained by management, and include, but are not limited to, future expected revenues earned from customer relationships and the developed product technologies and discount rates applied in determining the present value of those cash flows. Unanticipated events and circumstances may occur that could affect the accuracy or validity of such assumptions, estimates or actual results. Acquired identifiable intangible assets are amortized on the straight-line method over their estimated economic lives, which are generally two to ten years for trademarks, customer relationships, customer backlog, non-competition covenants and acquired developed product technologies and ten years for intellectual property. We include amortization of acquired developed product technologies in cost of revenue and amortization of other acquired intangible assets in operating expenses in our consolidated statements of operations.

Impairment of Goodwill, Intangible Assets and Long-lived Assets

Goodwill

Our goodwill was derived from the Take Private transaction and acquisitions where the purchase price exceeded the fair value of the net identifiable assets acquired. Goodwill is tested for impairment at least annually during the fourth quarter or more frequently if events or circumstances indicate it is more likely than not that the fair value of our reporting unit is less than its carrying value. An impairment of goodwill is recognized when the carrying amount of a reporting unit exceeds its fair value. For purposes of the impairment test, we first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value, a “Step 0” analysis. For “Step 0,” the qualitative factors we assess include events and circumstances that could affect the significant inputs used to determine the fair value of our reporting unit, including the significance of the amount of excess fair value over carrying value, consistency of operating margins and cash flows, budgeted-to-actual performance, overall change in economic climate, changes in the industry and competitive environment, key management turnover, and earnings quality and sustainability. If, based on a review of qualitative factors, it is more likely than not that the fair value of a reporting unit is less than its carrying value we perform “Step 1” of the goodwill impairment test (or "quantitative assessment") by comparing the fair value of a reporting unit with its carrying amount. We utilize a combination of both an income and market approach to determine the fair value of our reporting unit. If the carrying value exceeds the fair value, an impairment loss is recognized for the amount by which the reporting unit's carrying value exceeds its fair value, not to exceed the carrying value of goodwill in that reporting unit.

During the year ended December 31, 2022, we experienced declines in our stock price resulting in the total market value of our shares of stock outstanding (our "market capitalization"), being less than the carrying value of our reporting unit. We considered the decline in our market capitalization and the impact of current macroeconomic conditions on the assumptions used in determining the fair value of our reporting unit and determined it appropriate to perform interim quantitative assessments of our reporting unit as of June 30, 2022 and September 30, 2022. The macroeconomic conditions considered included the continued deterioration in the equity markets, which reduced the market multiples used in our analysis, along with an increase in the weighted-average cost of capital primarily driven by an increase in interest rates and ongoing effects from foreign currency exchange rate fluctuations. As a result of the interim impairment analyses, our reporting unit was determined to have a carrying value that exceeded its fair value and therefore, we recorded non-cash goodwill impairment charges of $612.4 million and $278.7 million for the three months ended June 30, 2022 and September 30, 2022, respectively. Throughout the period since the quantitative analysis performed on September 30, 2022, we have experienced increases in our market capitalization and determined there were no indicators of impairment that would negatively impact the fair value of our reporting unit.

On October 1, 2023, we performed our annual goodwill impairment analysis and assessed the above qualitative factors, including the increase in our market capitalization, along with several events and circumstances that could affect the significant inputs used to determine the fair value of our reporting unit. As of the date of our annual goodwill impairment analysis and throughout the fourth quarter, there were no unanticipated changes or negative indicators in the qualitative factors or valuation assumptions that would negatively impact the fair value of our reporting unit. As such, we determined there were no indicators of impairment and that it was more likely than not that the fair value of our reporting unit was greater than its carrying value at December 31, 2023.

Fair value determination of our reporting unit requires considerable judgment and is sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the goodwill impairment tests will prove to be an accurate prediction of future results. Examples of events or circumstances that could reasonably be expected to negatively affect the underlying key assumptions and ultimately impact the estimated fair value of our reporting unit may include such items as: (i) volatility in the equity and debt markets or other macroeconomic factors, (ii) an increase in the weighted-average cost of capital due to further increases in interest rates, (iii) timing and success of new products introduced in our evolution from monitoring to observability, (iv) the ongoing impact of the Cyber Incident including higher than estimated costs to respond and adverse loss exposure from fines or penalties resulting from government investigations and litigation; and (v) fluctuations in foreign currency exchange rates that may negatively impact our reported results of operations. Accordingly, if our current cash flow assumptions are not realized, we experience sustained declines in our stock price or market capitalization, or there are declines in the market multiples used in our analysis, it is possible that an impairment charge may be recorded in the future, which could be material.

Indefinite-lived Intangible Assets

We review our indefinite-lived intangible assets for impairment annually, in the fourth quarter, or more frequently if a triggering event occurs. We first assess qualitative factors to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired as a basis for determining whether it is necessary to perform the quantitative test. If necessary, the quantitative test is performed by determining the fair value of indefinite-lived intangible assets utilizing a relief from royalty valuation method and comparing the fair value to the carrying value. In the event the carrying value exceeds the fair value of the assets, the assets are written down to their fair value. As of June 30, 2022 and September 30, 2022, due to the factors discussed in the goodwill analysis above, we performed quantitative assessments of our indefinite-lived intangible assets and determined the estimated fair value of the SolarWinds trade name, recorded in connection with the Take Private, was less than its carrying value. As a result, we recorded non-cash impairment charges of $9.4 million and $5.9 million for the three months ended June 30, 2022 and September 30, 2022, respectively, which are included in general and administrative expense in our consolidated statements of operations.

On October 1, 2023, we performed a qualitative assessment and determined there were no indicators that our indefinite-lived intangible assets were impaired.

Long-lived Assets

We evaluate the recoverability of our long-lived assets, including finite-lived intangible assets and other assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Events or changes in circumstances that could result in an impairment review include, but are not limited to, significant underperformance relative to historical or projected future operating results, significant changes in the manner of use of the acquired assets or the strategy for our overall business, and significant negative industry or economic trends. In the event that the net book value of our long-lived assets exceeds the future undiscounted net cash flows attributable to such assets, an impairment charge would be required. Impairment, if any, is recognized in the period of identification to the extent the carrying amount of an asset or asset group exceeds the fair value of such asset or asset group.

As of June 30, 2022 and September 30, 2022, prior to performing the goodwill impairment analyses discussed above, we performed recoverability tests of our long-lived assets, including finite-lived intangible assets, by comparing the net book value of our long-lived assets or asset groups, to the future undiscounted net cash flows attributable to such assets, and determined no impairment was required. As of December 31, 2023, we assessed the qualitative factors above and determined it was more likely than not the carrying value of our long-lived assets was recoverable.

Investments

Our investments, classified as available-for-sale securities, consist of marketable securities such as corporate bonds, U.S. Treasury securities, commercial paper and asset-backed securities. We determine the appropriate classification of our investments at the time of purchase and reevaluate such determination at each balance sheet date. We may classify our available-for-sale securities as either short-term or long-term investments. We classify an investment as short-term if we have both the intent and ability to convert the security into cash to fund current operations.

Available-for-sale securities are carried at fair value, with the unrealized gains and losses, net of tax, reported in accumulated other comprehensive income (loss), which is a component of shareholders' equity except for any unrealized losses determined to be related to credit losses, which we record within other income (expense), net in our consolidated statements of operations. Any premiums or discounts are amortized or accreted, respectively, to maturity as a component of interest expense, net in our consolidated statements of operations. Cash flows from the amount of purchases, sales and maturities of available-for-sale securities are classified as cash flows from investing activities. Amortization and accretion of purchased premiums and discounts on securities are included as a non-cash adjustment to net income (loss) within cash flows from operating activities in our consolidated statements of cash flows.

The cost of securities sold is based on the specific-identification method. In determining if and when a decline in fair value is judged to be other-than-temporary, we evaluate, among other factors: the duration and extent to which the fair value has been less than the carrying value and the intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair market value. Declines in fair value deemed other-than-temporary are included as a component of other income (expense), net in our consolidated statements of operations. We have not recorded any other-than-temporary impairments related to marketable securities. See *Note 5. Investments* for a summary of our investments.

Fair Value Measurements

We apply the authoritative guidance on fair value measurements for financial assets and liabilities that are measured at fair value on a recurring basis and non-financial assets and liabilities, such as goodwill, intangible assets and property, plant and equipment that are measured at fair value on a non-recurring basis.

The guidance establishes a three-tiered fair value hierarchy that prioritizes inputs to valuation techniques used in fair value calculations. The three levels of inputs are defined as follows:

Level 1: Unadjusted quoted prices for identical assets or liabilities in active markets accessible by us.

Level 2: Inputs that are observable in the marketplace other than those inputs classified as Level 1.

Level 3: Inputs that are unobservable in the marketplace and significant to the valuation.

We determine the fair value of our available-for-sale securities based on inputs obtained from multiple pricing vendors, who may use quoted prices in active markets for identical assets (Level 1 inputs) or inputs other than quoted prices that are observable either directly or indirectly (Level 2 inputs) in determining fair value. However, we classify all of our available-for-sale securities as being valued using Level 2 inputs. The valuation techniques used to determine the fair value of our financial instruments having Level 2 inputs are derived from unadjusted, non-binding market consensus prices that are corroborated by observable market data, quoted market prices for similar instruments, or pricing models. Our procedures include controls to ensure that appropriate fair values are recorded by a review of the valuation methods and assumptions.

See *Note 6. Fair Value Measurements* for a summary of our financial instruments accounted for at fair value on a recurring basis. The carrying amounts reported in our consolidated balance sheets for cash, accounts receivable, accounts payable and other accrued expenses approximate fair value due to relatively short periods to maturity.

Accounts Receivable

Accounts receivable represent trade receivables from customers when we have sold subscriptions, perpetual licenses or related maintenance services and have not yet received payment. We present accounts receivable net of an allowance for credit losses. We maintain an allowance for estimated losses resulting from the inability of customers to make required payments. In doing so, we consider the current financial condition of the customer, the specific details of the customer account, the age of the outstanding balance and the current economic environment. Any change in the assumptions used in analyzing a specific account receivable might result in an additional allowance for credit losses being recognized in the period in which the change occurs. We have historically had insignificant write-offs related to bad debts.

Property and Equipment

We record property and equipment at cost and depreciate them using the straight-line method over their estimated useful lives as follows:

	Useful Life (in years)
Equipment, servers and computers	3 - 5
Furniture and fixtures	5 - 7
Software	3 - 5
Leasehold improvements	Lesser of lease term or useful life

Upon retirement or sale of property and equipment, we remove the cost of assets disposed of and any related accumulated depreciation from our accounts and credit or charge any resulting gain or loss to operating expense. We expense repairs and maintenance as they are incurred.

Research and Development Costs

Research and development expenses primarily consist of personnel costs and contractor fees related to the development of new software products and enhancements to existing software products. Personnel costs include salaries, bonuses and stock-based compensation and related employer-paid payroll taxes, as well as an allocation of our facilities, depreciation, benefits and IT costs. Research and development costs are charged to operations as incurred with the exception of those software development costs that may qualify for capitalization.

Capitalized Software Development Costs

For our software to be sold, including our perpetual and time-based licensed products, software development costs incurred subsequent to establishing technological feasibility through the general release of the software products are capitalized. Our new software license products and significant enhancements to our existing products are available for general release soon after technological feasibility has been established. Due to the short time period between technological feasibility and general release, capitalized software development costs related to our licensed products were insignificant for the years ended December 31, 2023, 2022 and 2021.

For our software solutions that are hosted and accessed by our customers on a subscription basis, we capitalize development costs related to developing new functionality in accordance with the guidance for internal-use software. We also capitalize costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality. Costs incurred in the preliminary stages of development are expensed as incurred. Once an application has reached the development stage, internal and external costs, if direct and incremental, are capitalized until the software is substantially complete and ready for its intended use. Capitalized internal-use software costs are recorded as part of other assets, net in our consolidated balance sheets. Maintenance and training costs are expensed as incurred. Internal-use software is amortized on a straight-line basis over its estimated useful life, generally three years, and included in cost of recurring revenue in the consolidated statements of operations. There were no impairments to internal-use software during the period.

We had $25.5 million and $19.3 million of internal-use software, net capitalized as of December 31, 2023 and 2022, respectively. Amortization expense of internal-use software was $9.0 million, $4.2 million and $3.3 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Debt Issuance Costs

Debt issuance costs for our credit facilities outstanding are presented as a deduction from the corresponding debt liability on our consolidated balance sheets and amortized on an effective interest rate method over the term of the associated debt as interest expense in our consolidated statements of operations. Amortization of debt issuance costs included in interest expense was $10.7 million, $9.1 million and $9.1 million for the years ended December 31, 2023, 2022 and 2021, respectively. See *Note 10. Debt* for discussion of our credit facilities.

Contingencies

We account for claims and contingencies in accordance with authoritative guidance that requires we record an estimated loss from a claim or loss contingency when information available prior to issuance of our consolidated financial statements indicates a liability has been incurred at the date of our consolidated financial statements and the amount of the loss can be reasonably estimated. If we determine that it is reasonably possible but not probable that an asset has been impaired or a liability has been incurred, we disclose the amount or range of estimated loss if material or that the loss cannot be reasonably estimated. We record loss recovery assets related to recognized loss contingencies for expected insurance proceeds we believe are probable of recovery. Accounting for claims and contingencies requires us to use our judgment. We consult with legal counsel on those issues related to litigation and seek input from other experts and advisors with respect to matters in the ordinary course of business. See *Note 16. Commitments and Contingencies* for a discussion of contingencies.

Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) by component are summarized below:

	Foreign Currency Translation Adjustments	Unrealized Gain (Loss) on Investments, Net of Tax	Accumulated Other Comprehensive Income (Loss)
		(in thousands)	
Balance at December 31, 2021	$ 1,306	$ —	$ 1,306
Other comprehensive gain (loss) before reclassification	(49,302)	(118)	(49,420)
Amount reclassified from accumulated other comprehensive income (loss)	—	—	—
Net current period other comprehensive income (loss)	(49,302)	(118)	(49,420)
Balance at December 31, 2022	(47,996)	(118)	(48,114)
Other comprehensive gain (loss) before reclassification	19,893	118	20,011
Amount reclassified from accumulated other comprehensive income (loss)	—	—	—
Net current period other comprehensive income (loss)	19,893	118	20,011
Balance at December 31, 2023	$ (28,103)	$ —	$ (28,103)

Revenue Recognition

We primarily generate recurring revenue from fees received for subscriptions and from the sale of maintenance services associated with our perpetual license products and license revenue from the sale of our perpetual license products. We recognize revenue related to contracts from customers when we transfer promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This is determined by following a five-step process which includes (1) identifying the contract with a customer, (2) identifying the performance obligations in the contract, (3) determining the transaction price, (4) allocating the transaction price, and (5) recognizing revenue when or as we satisfy a performance obligation, as described below.

- *Identify the contract with a customer.* We generally use a purchase order, an authorized credit card, an electronic or manually signed license agreement, or the receipt of a cash payment as evidence of a contract with a customer provided that collection is considered probable. We sell our products directly to technology professionals and through our distributors and resellers. Our distributors and resellers do not carry inventory of our software and we generally require them to specify the end user of the software at the time of the order. If the distributor or reseller does not provide end-user information, then we will generally not fulfill the order. Our distributors and resellers have no rights of return or exchange for software that they purchase from us and payment for these purchases is due to us without regard to whether the distributors or resellers collect payment from their customers. Sales through resellers and distributors are typically evidenced by a reseller or distributor agreement, together with purchase orders or authorized credit cards on a transaction-by-transaction basis.
- *Identify the performance obligations in the contract.* Performance obligations promised in a contract are identified based on the goods or services that will be transferred to the customer that are separately identifiable from other promises in the contract, or distinct. If not considered distinct, the promised goods or services are combined with other goods or services and accounted for as a combined performance obligation. Determining the distinct performance obligations in a contract requires judgment. Our performance obligations primarily include software-as-a-service, or SaaS, offerings, perpetual and time-based licenses, maintenance support including unspecified upgrades or enhancements to new versions of our software products and professional services. See additional discussion of our performance obligations below.
- *Determine the transaction price.* We determine the transaction price based on the contractual consideration and the amount of consideration we expect to receive in exchange for transferring the promised goods or services to the customer. We account for sales incentives to customers, resellers or distributors as a reduction of revenue at the time we recognize the revenue from the related product sale. We report revenue net of any sales tax collected. Our return policy generally does not allow our customers to return software offerings or cancel purchased maintenance and professional service contracts.

- *Allocate the transaction price.* We allocate the transaction price of the contract to each distinct performance obligation based on a relative standalone selling price basis. Determining standalone selling prices for our performance obligations requires judgment and are based on multiple factors including, but not limited to, historical selling prices and discounting practices for products and services, internal pricing policies and pricing practices in different regions and through different sales channels. For our SaaS subscription products and maintenance services, our standalone selling prices are generally observable using standalone sales or renewals. For our perpetual and time-based license products, given there are no observable standalone sales, we estimate our standalone selling prices by evaluating our historical pricing and discounting practices in observable bundled transactions. We review the standalone selling prices for our performance obligations periodically and update, if needed, to ensure that the methodology utilized reflects our current pricing practices.
- *Recognize revenue when or as we satisfy a performance obligation.* Revenue is recognized when or as performance obligations are satisfied either over time or at a point in time by transferring a promised good or service. We consider this transfer to have occurred when risk of loss transfers to the customer or the customer has access to their subscription which is generally upon electronic transfer of the license key or password that provides immediate availability of the product to the purchaser. See further discussion below regarding the timing of revenue recognition for each of our performance obligations.

The following summarizes our performance obligations from which we generate revenue:

Performance obligation	When performance obligation is typically satisfied
Subscription revenue	
SaaS offerings	Over the subscription term, once the service is made available to the customer (over time)
Time-based licenses	Upon the delivery of the license key or password that provides immediate availability of the product (point in time)
Time-based technical support and unspecified software upgrades	Ratably over the contract period (over time)
Maintenance revenue	
Technical support and unspecified software upgrades	Ratably over the contract period (over time)
Professional services	As delivered (over time)
License revenue	
Perpetual licenses	Upon the delivery of the license key or password that provides immediate availability of the product (point in time)

Recurring Revenue. Recurring revenue consists of subscription and maintenance revenue.

- *Subscription Revenue*. We primarily derive subscription revenue from fees received for subscriptions to our SaaS offerings and our time-based license arrangements. We generally invoice time-based subscription agreements, including multi-year arrangements, in advance at the beginning of the subscription period. Revenue for the license performance obligation of our time-based license offerings is primarily recognized at a point in time upon delivery of the license key and the revenue for the technical support performance obligation of our time-based license arrangements is recognized ratably over the contract period. For certain multi-year, time-based subscription arrangements, customers may elect to be invoiced annually and we extend cancellation rights to these customers. For these multi-year arrangements, revenue for the license performance obligation is recognized at the beginning of each annual term and the recognition of the revenue for the technical support performance obligation is recognized ratably over the contract period. We generally invoice our SaaS offerings over the subscription period on either a monthly or annual basis and to a lesser extent, monthly based on usage. Subscription revenue for our SaaS offerings is generally recognized ratably over the subscription term once the service is made available to the customer or when we have the right to invoice for services performed.
- *Maintenance Revenue*. We derive maintenance revenue from the sale of maintenance services associated with our perpetual license products. We typically include one year of maintenance service as part of the initial purchase price of each perpetual software offering and then sell renewals of this maintenance

agreement. Customers with maintenance agreements are entitled to receive technical support and unspecified upgrades or enhancements to new versions of their software products on a when-and-if-available basis for the specified contract period. We believe that our technical support and unspecified upgrades or enhancements performance obligations each have the same pattern of transfer to the customer and are therefore accounted for as a single distinct performance obligation. We recognize maintenance revenue ratably on a daily basis over the contract period. We also include professional services and other revenue in maintenance revenue, which is generally recognized over the contract period as delivered.

License Revenue. We derive license revenue from the sale of our perpetual licenses. Revenue for the license performance obligation of our perpetual license arrangements is recognized at a point in time upon delivery of the electronic license key. Perpetual license arrangements are invoiced upon delivery.

The following summarizes the revenue we recognized at a point in time and over time:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Revenue recognized at a point in time	$ 156,414	$ 136,076	$ 127,151
Revenue recognized over time	602,326	583,291	591,481
Total revenue recognized	$ 758,740	$ 719,367	$ 718,632

Deferred Revenue

Deferred revenue primarily consists of transaction prices allocated to remaining performance obligations from maintenance services associated with our perpetual license products and our time-based subscriptions which are delivered over time. We generally bill maintenance agreements for our perpetual licenses annually in advance for services to be performed over a 12-month period. Customers have the option to purchase maintenance renewals for periods other than 12 months. We initially record the amounts allocated to maintenance performance obligations as deferred revenue and recognize these amounts ratably on a daily basis over the term of the agreement. We record deferred revenue that will be recognized during the succeeding 12-month period as current deferred revenue and the remaining portion is recorded as long-term deferred revenue.

Details of our total deferred revenue balance was as follows:

	Total Deferred Revenue
	(in thousands)
Balance at December 31, 2021	$ 362,669
Deferred revenue recognized	(505,646)
Additional amounts deferred	519,200
Deferred revenue acquired in business combinations	263
Balance at December 31, 2022	376,486
Deferred revenue recognized	(531,132)
Additional amounts deferred	541,623
Balance at December 31, 2023	$ 386,977

We expect to recognize revenue related to these remaining performance obligations as of December 31, 2023 as follows:

	Revenue Recognition Expected by Period			
	Total	Less than 1 year	1-3 years	More than 3 years
		(in thousands)		
Expected recognition of deferred revenue	$ 386,977	$ 344,907	$ 40,957	$ 1,113

Deferred Commissions

Deferred commissions, which consist of direct and incremental sales commissions and related fringe benefits, are capitalized using the portfolio approach if we expect to benefit from those costs for more than one year. Deferred commissions are allocated to each performance obligation within the contract and amortized on a straight-line basis over the expected benefit period of the related performance obligations. We expense commissions as incurred when the expected amortization period is one year or less. Deferred commissions allocated to new maintenance arrangements, the technical support component of time-based license arrangements, and certain SaaS offerings are amortized over an average expected benefit period of approximately three to six years which was determined based on the expected life of our technology. Commissions allocated to perpetual and time-based licenses and maintenance renewal arrangements are expensed as incurred. Deferred commissions are classified as current or non-current assets based on the timing the expense will be recognized and are included in prepaid and other current assets and other assets, net respectively, in our consolidated balance sheets. The amortization of our deferred commissions is included in sales and marketing expense in our consolidated statement of operations.

Details of our deferred commissions balance was as follows:

	Deferred Commissions
	(in thousands)
Balance at December 31, 2021	$ 18,897
Commissions capitalized	10,326
Amortization recognized	(6,683)
Balance at December 31, 2022	22,540
Commissions capitalized	9,475
Amortization recognized	(8,452)
Balance at December 31, 2023	$ 23,563

	December 31, 2023	December 31, 2022
	(in thousands)	
Classified as:		
Current	$ 7,926	$ 6,936
Non-current	15,637	15,604
Total deferred commissions	$ 23,563	$ 22,540

Cost of Revenue

Cost of recurring revenue. Cost of recurring revenue primarily consists of technical support personnel costs which includes salaries, bonuses and stock-based compensation and related employer-paid payroll taxes for technical support personnel, as well as an allocation of overhead costs. Public cloud infrastructure and hosting fees and amortization of internal-use software related to our hosted solutions are also included in cost of recurring revenue. Cost of license revenue is immaterial to our financial statements and is included in cost of recurring revenue in our consolidated statements of operations.

Amortization of acquired technologies. Amortization of acquired technologies included in cost of revenue relate to our licensed products and subscription products as follows:

	Year Ended December 31, 2023	2022	2021
		(in thousands)	
Amortization of acquired license technologies	$ 3,693	$ 17,239	$ 148,609
Amortization of acquired subscription technologies	9,676	10,896	11,364
Total amortization of acquired technologies	$ 13,369	$ 28,135	$ 159,973

The decrease in amortization of acquired license technologies for the years ended December 31, 2023 and 2022, as compared to the year ended December 31, 2021, was primarily due to certain intangible assets acquired in connection with the Take Private being fully amortized during the first quarter of 2022.

Advertising

We expense advertising costs as incurred. Advertising expense is included in sales and marketing expenses in our consolidated statements of operations.

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Advertising expense	$ 22,785	$ 35,069	$ 39,318

Leases

We lease facilities worldwide and certain equipment under non-cancellable lease agreements. We evaluate if a contract is or contains a lease at inception of the contract. If we determine that a contract is or contains a lease, we determine the appropriate lease classification and recognize a right-of-use asset and lease liability at the commencement date of the lease based on the present value of fixed lease payments over the lease term reduced by lease incentives. To determine the present value of lease payments, we use an estimated incremental borrowing rate based on the interest rate a similar borrowing on a collateralized basis would incur based on information available on the lease commencement date as none of our leases provide an implicit rate. We generally base this discount rate on the interest rate incurred by our senior secured debt, adjusted for considerations for the value, term and currency of the lease. Lease terms include options to extend or terminate the lease when it is reasonably certain that we will exercise those options.

We recognize right-of-use assets and lease liabilities for leasing arrangements with terms greater than one year. Certain lease contracts include obligations to pay for other services, such as operations and maintenance. We account for lease and non-lease components in a contract as a single lease component for all classes of underlying assets except certain classes of equipment. Right-of-use assets are tested for impairment in the same manner as long-lived assets.

The terms of some of our lease agreements provide for rental payments on a graduated basis. Operating lease costs are recognized on a straight-line basis over the lease term and recorded in the appropriate income statement line item based on the asset or a headcount allocation for office leases. Certain of our office leases require the payment of our proportionate share of common area maintenance or service charges. As we have elected to account for lease and non-lease components as a single lease component for our real estate leases, these costs are included in variable lease costs. In addition, certain of our leases may include variable payments based on measures that include changes in price indices or market interest rates which are included in variable lease costs and expensed as incurred. We had no finance leases as of and for the years ended December 31, 2023, 2022 and 2021. See *Note 8. Leases* for additional information regarding our lease arrangements.

Income Taxes

We use the liability method of accounting for income taxes as set forth in the authoritative guidance for accounting for income taxes. Under this method, we recognize deferred tax liabilities and assets for the expected future tax consequences of temporary differences between the respective carrying amounts and tax basis of our assets and liabilities.

The guidance on accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute for financial statement disclosure of tax positions taken or expected to be taken on a tax return. We accrue interest and penalties related to unrecognized tax benefits as a component of income tax expense.

We establish valuation allowances when necessary to reduce deferred tax assets to the amounts expected to be realized. On a quarterly basis, we evaluate the need for, and the adequacy of, valuation allowances based on the expected realization of our deferred tax assets. The factors used to assess the likelihood of realization include reversal of taxable temporary differences, carryback potential, our latest forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. See *Note 15. Income Taxes* for additional information regarding our income taxes.

Stock-Based Compensation

We recognize stock-based compensation for our stock-based incentive awards and shares issued under our employee stock purchase plan ("ESPP"). We have granted our employees, directors and certain contractors stock-based incentive awards in the form of restricted stock units, stock options and restricted stock. Our stock awards vest on service-based or performance-based vesting conditions. We measure stock-based compensation expense for all share-based awards granted to employees and directors based on the estimated fair value of those awards on the date of grant. The fair value of restricted stock unit awards and restricted stock awards is determined using the fair market value of the underlying common stock on the date of grant less any amount paid at the time of the grant, or intrinsic value. The fair value of stock option awards and ESPP purchase rights are estimated using a Black-Scholes valuation model. For our service-based awards, we recognize stock-based compensation expense on a straight-line basis over the service period of the award. For our performance-based awards, we recognize stock-based compensation expense on a graded-vesting basis over the service period of each separately vesting tranche of the award, if it is probable that the performance target will be achieved. We recognize stock-based compensation expense for shares issued under our ESPP on a straight-line basis over the offering period.

There were no grants of stock options made during the years ended December 31, 2023 and 2022. For the year ended December 31, 2021, we estimated the fair value for stock options at the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year Ended December 31, 2021[(1)]
Expected dividend yield	— %
Volatility	39.9 %
Risk-free rate of return	0.4 %
Expected life	3.1 years

(1) There were no grants of stock options made during the year ended December 31, 2021; however due to modifications of grants resulting from the Separation, certain stock options were reflected as new grants issued at the modification date fair value and the previous grants were forfeited.

Other than the Special Dividend paid in connection with the Separation, we have not paid cash dividends on our common stock; therefore, we assume the expected dividend yield to be zero. We estimate the expected volatility using the historical volatility of comparable public companies from a representative peer group. We based the risk-free rate of return on the average U.S. treasury yield curve for the most appropriate terms for the respective periods. As allowed under current guidance, we have elected to apply the “simplified method” in developing our estimate of expected life for “plain vanilla” stock options by using the midpoint between the vesting date and contractual termination date since we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term. Performance-based awards are not considered granted under the applicable accounting guidance until the performance attainment targets for each applicable tranche have been defined. We recognize the impact of forfeitures in stock-based compensation expense when they occur. See *Note 11. Stockholders’ Equity and Stock-Based Compensation* for additional information.

The impact to our income (loss) before income taxes due to stock-based compensation expense and the related income tax benefits were as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Impact to income (loss) before income taxes due to stock-based compensation	$ 75,727	$ 67,050	$ 58,763
Income tax benefit related to stock-based compensation	10,329	11,580	11,502

Net Income (Loss) Per Share

We calculate basic and diluted net income (loss) per share attributable to common stockholders in conformity with the two-class method required for companies with participating securities. Under the two-class method, basic and diluted net income (loss) per share is determined by calculating net income (loss) per share for common stock and participating securities based on participation rights in undistributed earnings. Our unvested incentive restricted stock has the right to receive non-forfeitable dividends on an equal basis with common stock and therefore are considered participating securities that must be included in the calculation of net income per share using the two-class method. We computed basic net income (loss) per share available to common stockholders by dividing net income (loss) available to common stockholders by the weighted-average number of common shares outstanding during the reporting period. Net income (loss) available to common stockholders is defined as net income (loss), less dividends on unvested restricted stock and earnings allocated to unvested restricted stock. The holders of unvested incentive restricted stock do not have a contractual obligation to share in our losses. As such, in periods in which we had net losses available to common stockholders, our net losses were not allocated to these participating securities.

We computed diluted net income (loss) per share similarly to basic net income (loss) per share except that it reflects the potential dilution that could occur if dilutive securities or other obligations to issue common stock were exercised or converted into common stock using the treasury stock method. Refer to *Note 12. Earnings (Loss) Per Share* for additional information regarding the computation of net income per share and *Note 11. Stockholders' Equity and Stock-Based Compensation* for additional information regarding our common stock.

Concentrations of Risks

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents, short-term investments and accounts receivable. We consider all highly liquid investments with original maturities of three months or less to be cash equivalents.

Our cash and cash equivalents consisted of the following:

	December 31,	
	2023	2022
	(in thousands)	
Demand deposit accounts	$ 56,105	$ 72,905
Money market funds	195,017	48,833
Commercial paper	31,586	—
U.S. Treasury securities	1,987	—
Total cash and cash equivalents	$ 284,695	$ 121,738

Our cash deposited with banks in demand deposit accounts may exceed the amount of insurance provided on these deposits. Our cash equivalents invested in money market funds and investments are not insured and we are therefore at risk of losing our full investment. Generally, we may withdraw our cash deposits and redeem our invested cash equivalents upon demand. We seek to maintain our cash deposits and invest in money market funds with multiple financial institutions of reputable credit and therefore bear minimal credit risk.

We provide credit to distributors, resellers and direct customers in the normal course of business. We generally extend credit to new customers based upon industry reputation and existing customers based upon prior payment history. The following distributors represented more than 10% of our revenue:

	Year Ended December 31,		
	2023	2022	2021
Distributor A	13.8 %	12.2 %	11.7 %
Distributor B	16.2 %	15.0 %	12.6 %

At December 31, 2023 and 2022, Distributor A represented 11.6% and 11.7%, respectively of our outstanding accounts receivable balance. We do not believe that our business is substantially dependent on any distributor or that the loss of a distributor relationship would have a material adverse effect on our business.

3. Discontinued Operations

On July 19, 2021, we completed the Separation of our N-able business into a newly created and separately traded public company, N-able, Inc. The Separation was completed by means of a tax-free, pro-rata distribution in which each holder of our common stock, par value $0.001 per share, received one share of N-able's common stock, par value $0.001, for every two shares of our common stock held of record as of the close of business on July 12, 2021.

The Separation was achieved through the transfer of all the net assets and legal entities associated with the N-able business to N-able, Inc. The distribution of the net assets to N-able, Inc. was recorded as a reduction to additional paid-in capital. As part of the Separation, we received a cash distribution from N-able which includes $324.7 million in cash to repay intercompany indebtedness and $238.2 million as a one-time dividend payment, net of $57.3 million of cash distributed to N-able at the Separation.

After the Separation, we do not beneficially own any shares of common stock in N-able and no longer consolidate N-able into our financial results for periods ending after July 19, 2021. In accordance with applicable accounting guidance, the results of the N-able business are presented as discontinued operations for the period up to and including the date of the Separation, and, as such, have been excluded from continuing operations for all periods presented.

The following table summarizes the results of operations of N-able presented as discontinued operations:

	Year Ended December 31, 2021
	(in thousands)
Revenue:	
Subscription	$ 183,594
Maintenance	5,053
Total revenue	188,647
Cost of revenue:	
Cost of recurring revenue	25,218
Amortization of acquired technologies	3,950
Total cost of revenue	29,168
Gross profit	159,479
Operating expenses:	
Sales and marketing	55,249
Research and development	27,133
General and administrative	42,994
Amortization of acquired intangibles	10,626
Total operating expenses	136,002
Operating income from discontinued operations	23,477
Other income (expense):	
Other income (expense), net	(608)
Income from discontinued operations before income taxes	22,869
Income tax expense	9,807
Net income from discontinued operations, net of tax	$ 13,062

We incurred $0.2 million and $31.6 million of costs in connection with the Separation during the years ended December 31, 2022 and 2021, respectively, which are primarily reflected in our consolidated statements of operations as discontinued operations for the 2021 period presented. These costs include legal, accounting and advisory fees, implementation and integration costs, duplicative costs for subscriptions and information technology systems, employee and contract costs and other incremental separation costs related to the Separation.

4. Goodwill and Intangible Assets

Goodwill

The following table reflects the changes in goodwill for the years ended December 31, 2023 and 2022:

	(in thousands)
Balance at December 31, 2021	$ 3,308,405
Acquisitions	5,415
Goodwill impairment	(891,101)
Foreign currency translation and other adjustments	(42,660)
Balance at December 31, 2022	2,380,059
Foreign currency translation and other adjustments	17,486
Balance at December 31, 2023	$ 2,397,545

The goodwill from acquisitions resulted primarily from our expectations that we will now be able to offer our customers additional products in new markets. Additionally, we expect the acquisitions will attract new customers to our entire line of products. Accumulated goodwill impairment on our consolidated balance sheet was $897.2 million and $893.0 million as of December 31, 2023 and 2022, respectively, and is impacted by changes in foreign currency exchange rates. See *Note 2. Summary of Significant Accounting Policies* for discussion of the goodwill impairment recorded during the year ended December 31, 2022.

Intangible Assets

Intangible assets consisted of the following at December 31, 2023 and 2022:

	December 31, 2023			December 31, 2022		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
			(in thousands)			
Developed product technologies	$ 72,649	$ (50,589)	$ 22,060	$ 81,583	$ (46,228)	$ 35,355
Customer relationships	430,353	(335,948)	94,405	451,931	(310,445)	141,486
Intellectual property	2,197	(912)	1,285	1,965	(702)	1,263
Trademarks	765	(574)	191	759	(190)	569
Total definite-lived intangible assets	505,964	(388,023)	117,941	536,238	(357,565)	178,673
Indefinite-lived trade names	65,747	—	65,747	65,307	—	65,307
Total intangible assets	$ 571,711	$ (388,023)	$ 183,688	$ 601,545	$ (357,565)	$ 243,980

Intangible asset amortization expense was as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Intangible asset amortization expense	$ 61,798	$ 80,648	$ 215,447

The decrease in intangible asset amortization expense for the years ended December 31, 2023 and 2022, as compared to the year ended December 31, 2021, was primarily due to developed product technologies, acquired in connection with the Take Private, being fully amortized.

As of December 31, 2023, we estimate aggregate intangible asset amortization expense to be as follows:

	Estimated Amortization
	(in thousands)
2024	$ 53,367
2025	50,213
2026	9,314
2027	4,582
2028	149

The expected amortization expense is an estimate. Actual amounts of amortization expense may differ from estimated amounts due to additional intangible asset acquisitions, changes in foreign currency exchange rates, impairment of intangible assets, future changes to expected asset lives of intangible assets and other events. Our indefinite-lived trademarks primarily include the SolarWinds and THWACK trademarks. See *Note 2. Summary of Significant Accounting Policies* for discussion of the impairment of our indefinite-lived intangible assets recorded during the year ended December 31, 2022.

5. Investments

Our short-term investments consist of available-for-sale securities, such as U.S. Treasury securities, corporate bonds, commercial paper and asset-backed securities.

The following table summarizes our short-term investments:

	December 31, 2023			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(in thousands)			
Short-term investments:				
Available-for-sale securities:				
U.S. Treasury securities	$ 3,979	$ 1	$ —	$ 3,980
Commercial paper	497	—	—	497
Total short-term investments	$ 4,476	$ 1	$ —	$ 4,477

	December 31, 2022			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(in thousands)			
Short-term investments:				
Available-for-sale securities:				
U.S. Treasury securities	$ 6,013	$ —	$ (43)	$ 5,970
Corporate bonds	19,887	—	(105)	19,782
Commercial paper	798	—	—	798
Asset-backed securities	565	—	(1)	564
Total short-term investments	$ 27,263	$ —	$ (149)	$ 27,114

The following table summarizes the fair value of our available-for-sale securities with unrealized losses aggregated by type of investment instrument and length of time those securities have been in a continuous unrealized loss position:

	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	(in thousands)					
As of December 31, 2022						
U.S. Treasury securities	$ 5,970	$ (43)	$ —	$ —	$ 5,970	$ (43)
Corporate bonds	19,782	(105)	—	—	19,782	(105)
Asset-backed securities	564	(1)	—	—	564	(1)
	$ 26,316	$ (149)	$ —	$ —	$ 26,316	$ (149)

The following table summarizes the contractual underlying maturities of our available-for-sale securities:

	December 31, 2023	
	Cost	Fair Value
	(in thousands)	
Due in one year or less	$ 4,476	$ 4,477

6. Fair Value Measurements

The following table summarizes the fair value of our financial assets that were measured on a recurring basis as of December 31, 2023 and 2022. There have been no transfers between fair value measurement levels during the year ended December 31, 2023.

	Fair Value Measurements at December 31, 2023 Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
		(in thousands)		
Cash equivalents:				
Money market funds	$ 195,017	$ —	$ —	$ 195,017
U.S. Treasury securities	—	1,987	—	1,987
Commercial paper	—	31,586	—	31,586
Total cash equivalents	195,017	33,573	—	228,590
Short-term investments:				
U.S. Treasury securities	—	3,980	—	3,980
Commercial paper	—	497	—	497
Total short-term investments	—	4,477	—	4,477
Total assets	$ 195,017	$ 38,050	$ —	$ 233,067

	Fair Value Measurements at December 31, 2022 Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
		(in thousands)		
Cash equivalents:				
Money market funds	$ 48,833	$ —	$ —	$ 48,833
Total cash equivalents	48,833	—	—	48,833
Short-term investments:				
U.S. Treasury securities	—	5,970	—	5,970
Corporate bonds	—	19,782	—	19,782
Commercial paper	—	798	—	798
Asset-backed securities	—	564	—	564
Total short-term investments	—	27,114	—	27,114
Total assets	$ 48,833	$ 27,114	$ —	$ 75,947

As of December 31, 2023 and 2022, the carrying value of our long-term debt approximates its estimated fair value as the interest rate on the debt agreements is adjusted for changes in the market rates. See *Note 10. Debt* for additional information regarding our debt.

The fair value of our non-financial assets and liabilities, which include goodwill, intangible assets and property, plant and equipment, are measured on a non-recurring basis. Fair value adjustments are made in the period an impairment charge is recognized. During the year ended December 31, 2022, we recognized impairment charges to our goodwill and indefinite-lived trade name intangible asset. The fair value of our reporting unit and indefinite-lived intangible asset are classified as Level 3 within the fair value hierarchy due to the significant unobservable inputs developed using company-specific information. For additional information, see the discussion of our impairment charges in *Note 2. Summary of Significant Accounting Policies - Impairment of Goodwill, Intangible Assets and Long-lived Assets*.

7. Property and Equipment

Property and equipment, including software, consisted of the following:

	December 31, 2023	December 31, 2022
	(in thousands)	
Equipment, servers and computers	$ 29,063	$ 29,519
Furniture and fixtures	3,363	4,241
Software	713	958
Leasehold improvements	25,321	25,214
	58,460	59,932
Less: Accumulated depreciation and amortization	(38,791)	(33,298)
Property and equipment, net	$ 19,669	$ 26,634

Depreciation and amortization expense on property and equipment was as follows:

	Year Ended December 31, 2023	2022	2021
		(in thousands)	
Depreciation and amortization	$ 11,388	$ 10,109	$ 11,074

8. Leases

We lease our offices and do not own any real estate. Our corporate headquarters is located in Austin, Texas and we also lease office space domestically and internationally in various locations for our operations, including facilities located in Cork, Ireland; Manila, Philippines; Brno, Czech Republic; Singapore; Krakow, Poland; Reston, Virginia and Charlotte, North Carolina. Our leases are all classified as operating and generally have remaining terms of less than one year to eight years.

The components of operating lease costs were as follows:

	Year Ended December 31, 2023	2022	2021
		(in thousands)	
Operating lease costs	$ 15,319	$ 17,114	$ 20,224
Variable lease costs[(1)]	2,915	2,296	2,213
Short-term lease costs	354	511	396
Sublease income received	(2,883)	(3,201)	(2,559)
Total lease costs	$ 15,705	$ 16,720	$ 20,274

(1) Primarily includes common area maintenance and other service charges for leases in which we pay a proportionate share of those costs as we have elected to not separate lease and non-lease components for our office leases.

During the year ended December 31, 2023, as part of our ongoing efforts to align our office lease arrangements with our anticipated operating needs, we exited certain leased facilities and recognized impairment charges for the related operating lease assets of $11.5 million which are included in general and administrative expense.

Maturities of our operating lease liabilities as of December 31, 2023 were as follows:

	(in thousands)
2024	$ 17,609
2025	15,750
2026	15,952
2027	14,517
2028	4,866
Thereafter	3,022
Total minimum lease payments	71,716
Less: imputed interest	(6,943)
Present value of operating lease liabilities	$ 64,773

As of December 31, 2023, the weighted-average remaining lease term of our operating leases was 4.4 years and the weighted-average discount rate used in the calculation of our lease liabilities was 4.8%.

Supplemental cash flow information related to our leases was as follows:

	Year Ended December 31,		
	2023	2022	2021
	(in thousands)		
Cash paid for amounts included in the measurement of operating lease liabilities	$ 18,868	$ 16,954	$ 18,910
Right-of-use assets obtained in exchange for operating lease liabilities	6,441	1,322	2,108

9. Accrued Liabilities and Other

Accrued liabilities and other current liabilities were as follows:

	December 31,	
	2023	2022
	(in thousands)	
Payroll-related accruals	$ 39,082	$ 21,576
Litigation settlement payable(1)	—	26,000
Other accrued expenses and current liabilities	17,561	20,708
Total accrued liabilities and other	$ 56,643	$ 68,284

(1) See *Note 16. Commitments and Contingencies* for discussion.

10. Debt

Debt Agreements

The following table summarizes information relating to our debt:

	December 31,			
	2023		2022	
	Amount	Effective Rate	Amount	Effective Rate
	(in thousands, except interest rates)			
Revolving credit facility	$ —	— %	$ —	— %
First Lien Term Loan (as amended) due Feb 2027	1,235,662	9.11 %	1,245,000	8.32 %
Total principal amount	1,235,662		1,245,000	
Unamortized discount and debt issuance costs	(32,278)		(42,897)	
Total debt	1,203,384		1,202,103	
Less: Current portion of long-term debt	(12,450)		(9,338)	
Total long-term debt	$ 1,190,934		$ 1,192,765	

Senior Secured First Lien Credit Facilities

In connection with the Take Private in 2016, we entered into a first lien credit agreement with a syndicate of institutional lenders and financial institutions (the "Credit Agreement").

The Credit Agreement, as amended, consisted of the following as of December 31, 2023:

- a $1.245 billion U.S. dollar term loan, or First Lien Term Loan, with a final maturity date of February 5, 2027; and
- a $130.0 million revolving credit facility (with a letter of credit sub-facility in the amount of $35.0 million), or the Revolving Credit facility, consisting of (i) a $112.5 million multicurrency tranche and (ii) a $17.5 million tranche available only in U.S. dollars, with a final maturity of the earlier of: November 23, 2027 or, in the event that there are more than $150.0 million of the First Lien Term Loan outstanding on the 91st day prior to maturity date of the first lien term loans, the 91st day prior to the maturity date of the First Lien Term Loan.

Borrowings under our Revolving Credit Facility bear interest at a floating rate which is, at our option, either (1) a secured overnight financing rate (“SOFR”) for a specified interest period plus an applicable margin of 2.25% or (2) a base rate plus an applicable margin of 1.25%, respectively. The SOFR rate applicable to the Revolving Credit Facility is subject to a “floor” of 0.0%.

At December 31, 2023, borrowings under our First Lien Term Loan bore interest at a floating rate which is, at our option, either (1) a SOFR rate for a specified interest period plus an applicable margin of 3.75% or (2) a base rate plus an applicable margin of 2.75%, respectively. The SOFR rate applicable to the First Lien Term Loan is subject to a “floor” of 0.0%.

The base rate for any day is a fluctuating rate per annum equal to the highest of (a) the rate of interest in effect for such day as publicly announced by Credit Suisse as its “prime rate” and (b) the federal funds effective rate in effect on such day plus 0.50% and (c) the one-month SOFR rate plus 1.0% per annum.

The First Lien Term Loan requires equal quarterly repayments equal to 0.25% of the amended principal amount.

In addition to paying interest on loans outstanding under the Revolving Credit Facility and the First Lien Term Loan, we are required to pay a commitment fee of 0.375% per annum of unused commitments under the Revolving Credit Facility.

The Credit Agreement contains a number of covenants that, among other things, restrict, subject to certain exceptions, our ability to: incur additional indebtedness; incur liens; engage in mergers, consolidations, liquidations or dissolutions; pay dividends and distributions on, or redeem, repurchase or retire our capital stock; and make certain investments, acquisitions, loans, or advances. In addition, the terms of the Credit Agreement include a financial covenant which requires that, at the end of each fiscal quarter, if the aggregate amount of borrowings under the Revolving Credit Facility exceeds 35% of the aggregate commitments under the Revolving Credit Facility, our first lien net leverage ratio cannot exceed 7.40 to 1.00. The First Lien Credit Agreement also contains certain customary representations and warranties, affirmative covenants and events of default. As of December 31, 2023, we were in compliance with all covenants of the Credit Agreement.

The following table summarizes the future minimum principal payments under the First Lien Term Loan outstanding as of December 31, 2023:

	(in thousands)
2024	$ 12,450
2025	12,450
2026	12,450
2027	1,198,312
Total minimum principal payments	$ 1,235,662

On January 23, 2024, we entered into Amendment No. 7 to the Credit Agreement to, among other things, (i) refinance the First Lien Term Loans, (ii) decrease the applicable margin for our existing First Lien Term Loans to 3.25% with respect to SOFR borrowings and (iii) remove the First Lien Term Loan net leverage ratio component of determining the applicable margin. The Credit Agreement maturity date remained unchanged.

11. Stockholders' Equity and Stock-Based Compensation

Common Stock and Preferred Stock

As set by our certificate of incorporation, the Company has authorized 1,000,000,000 shares of common stock, par value of $0.001 per share, and 50,000,000 shares of preferred stock, par value of $0.001 per share. Each share of common stock entitles the holder thereof to one vote on each matter submitted to a vote at any meeting of stockholders.

Equity Incentive Awards

2016 Equity Incentive Plan

The board of directors adopted, and the stockholders approved, the SolarWinds Corporation Equity Plan, or 2016 Plan, in June 2016. Under the 2016 Plan, the Company was able to sell or grant shares of Class A Common Stock and Class B Common Stock and common stock-based awards, including nonqualified stock options, to the Company's employees, consultants, directors, managers and advisors. Our ability to grant any future equity awards under the 2016 Plan terminated in October 2018 following the consummation of our IPO. Our 2016 Plan continues to govern the terms and conditions of all outstanding equity awards granted under the 2016 Plan.

Options and restricted stock issued under the 2016 Plan to employees generally vest annually over four or five years on each anniversary of the vesting commencement date, subject to continued employment through each applicable vesting date. The term of an incentive stock option granted under our 2016 Plan may not exceed ten years. Under the terms of the applicable restricted stock purchase agreements, the Company had the right to repurchase restricted stock that was purchased by an employee or director in the event that stockholder ceases to be employed or engaged (as applicable) by the Company for any reason or in the event of a change of control or due to certain regulatory burdens. The repurchase price for any unvested shares is equal to the lesser of (i) the price the stockholder paid for those shares and (ii) the fair market value of those shares.

We have granted employees restricted stock and options at exercise prices equal to the fair value of the underlying common stock at the time of grant, as determined by our board of directors on a contemporaneous basis. As of December 31, 2023, common stock-based incentive awards outstanding under the 2016 Plan consists of 127,222 vested stock options and no restricted stock remain outstanding. For the years ended December 31, 2022 and 2021, the Company repurchased 10,850 and 95,575 shares, respectively, of unvested restricted common stock upon employee terminations.

2018 Equity Incentive Plan

In October 2018, the board of directors adopted, and the stockholders approved, the SolarWinds Corporation 2018 Equity Incentive Plan, or 2018 Plan. Under the 2018 Plan, the Company is able to sell or grant shares of common stock-based awards, including nonstatutory stock options or incentive stock options, stock appreciation rights, restricted stock, restricted stock units, performance stock units and other cash-based or stock-based awards, to the Company's employees, contractors, consultants, directors, managers and advisors. The term of a stock option and stock appreciation right granted under our 2018 Plan may not exceed ten years. As of December 31, 2023, stock-based incentive awards of 11,487,804 were outstanding under the 2018 Plan, consisting of 9,486,881 restricted stock units, or RSUs, and 2,000,923 performance stock units, or PSUs, and 39,231,258 shares were reserved for future grants.

RSUs generally vest over the requisite service period of four years, subject to continued employment through each applicable vesting date. PSUs generally vest over a three-year period based on the achievement of specified performance targets for the fiscal year and subject to continued service through the applicable vesting dates. Based on the extent to which the performance targets are achieved, PSUs may vest at a specified range of the target award amount.

Stock Option Awards

Option grant activity under the 2016 Plan was as follows:

	Number of Shares Outstanding	Weighted-Average Exercise Price	Aggregate Intrinsic Value (in thousands)	Weighted-Average Remaining Contractual Term (in years)
Outstanding balances at December 31, 2022	266,193	$ 1.19		
Options granted	—	—		
Options exercised	(131,068)	1.09		
Options forfeited	—	—		
Options expired	(7,903)	1.30		
Outstanding balances at December 31, 2023	127,222	$ 1.28		
Options exercisable at December 31, 2023	127,222	$ 1.28	$ 1,426	3.6
Options vested and expected to vest at December 31, 2023	127,222	$ 1.28	$ 1,426	3.6

Additional information regarding options is as follows (in thousands except for per share amounts):

	Year Ended December 31,		
	2023	2022	2021
Weighted-average grant date fair value per share of options granted during the period	$ —	$ —	$ 3.84
Aggregate intrinsic value of options exercised during the period	1,037	536	5,879
Aggregate fair value of options vested during the period	24	31	392

There is no unrecognized stock-based compensation expense related to unvested stock options and subject to recognition in future periods as of December 31, 2023.

Restricted Stock

The following table summarizes information about restricted stock activity subject to vesting under the 2016 Plan:

	Number of Shares Outstanding
Unvested balances at December 31, 2022	3,117
Restricted stock granted and issued	—
Restricted stock vested	(3,117)
Restricted stock repurchased - unvested shares	—
Unvested balances at December 31, 2023	—

Restricted stock was purchased at fair market value by the employee receiving the restricted stock award and restricted common stock was issued at the date of grant. The aggregate intrinsic value of restricted stock vested during the year ended December 31, 2023 was insignificant and was $0.6 million and $15.0 million for the years ended December 31, 2022 and 2021, respectively.

Restricted stock was subject to certain restrictions, such as vesting and a repurchase right. The common stock acquired by the employee was restricted stock because vesting was conditioned upon continued employment through the applicable vesting date. The restricted stock was subject to repurchase in the event the stockholder ceased to be employed or engaged (as applicable) by the Company for any reason or in the event of a change of control or due to certain regulatory burdens. As the restricted stock was purchased at fair market value at the time of grant, there was typically no stock-based compensation expense recognized related to these awards.

Restricted Stock Units

The following table summarizes information about RSUs under the 2018 Plan:

	Number of Units Outstanding	Weighted-Average Grant Date Fair Value Per Share	Aggregate Intrinsic Value (in thousands)	Weighted-Average Remaining Contractual Term (in years)
Unvested balances at December 31, 2022	10,244,903	$ 14.17		
RSUs granted	6,037,279	9.18		
RSUs vested	(5,160,872)	13.62		
RSUs forfeited	(1,634,429)	11.76		
Unvested balances at December 31, 2023	9,486,881	$ 11.70	$ 118,491	1.3

The total fair value of RSUs vested during the years ended December 31, 2023, 2022 and 2021, was $53.5 million, $38.5 million and $56.6 million, respectively. The total unrecognized stock-based compensation expense related to unvested RSUs and subject to recognition in future periods is $102.9 million as of December 31, 2023 and we expect to recognize this expense over a weighted-average period of 2.5 years.

Performance Stock Units

The following table summarizes information about PSUs under the 2018 Plan:

	Number of Units Outstanding	Weighted-Average Grant Date Fair Value Per Share	Aggregate Intrinsic Value (in thousands)	Weighted-Average Remaining Contractual Term (in years)
Unvested balances at December 31, 2022	1,513,574	$ 13.38		
PSUs granted	1,744,074	8.87		
PSUs vested	(841,567)	13.40		
PSUs forfeited	(415,158)	10.01		
Unvested balances at December 31, 2023	2,000,923	$ 10.13	$ 24,992	0.8

The total fair value of PSUs vested during the year ended December 31, 2023 was $8.0 million. The total unrecognized stock-based compensation expense related to unvested PSUs and subject to recognition in future periods is $12.6 million as of December 31, 2023 and we expect to recognize this expense over a weighted-average period of 0.8 years.

For RSUs and PSUs, the number of shares issued on the date of vesting is generally net of statutory withholding requirements that we pay in cash to the appropriate taxing authorities on behalf of our employees. We withheld and retired approximately 1,844,000 shares, 934,000 shares and 520,000 shares to satisfy $18.8 million, $11.1 million and $14.0 million of employees' tax obligations during the years ended December 31, 2023, 2022 and 2021, respectively. These shares are treated as common stock repurchases in our consolidated financial statements.

Employee Stock Purchase Plan

In October 2018, our board of directors adopted and our stockholders approved our 2018 Employee Stock Purchase Plan, or the ESPP. As of December 31, 2023, 5,464,628 shares of our common stock were reserved for future issuance under our ESPP.

Our ESPP permits eligible participants to purchase common stock through payroll deductions of up to 20% of their eligible compensation during the consecutive six-month offering periods. Amounts deducted and accumulated from participant compensation, or otherwise funded by participants, are used to purchase shares of our common stock at the end of each offering period. The purchase price of the shares will be 85% of the lesser of the fair market value of our common stock on the first day of the offering period and the fair market value on the last day of the offering period.

Stock-based compensation expense related to our ESPP plan was $1.3 million, $1.3 million and $1.5 million for the years ended December 31, 2023, 2022 and 2021, respectively.

12. Earnings (Loss) Per Share

A reconciliation of net income (loss) available to common stockholders and the number of shares in the calculation of basic and diluted earnings (loss) per share follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Basic earnings (loss) per share			
Numerator:			
Net loss from continuing operations	$ (9,109)	$ (929,413)	$ (64,470)
Net income from discontinued operations	—	—	13,062
Net loss	(9,109)	(929,413)	(51,408)
Dividends on unvested restricted stock	—	—	(160)
Earnings allocated to unvested restricted stock	—	—	—
Net loss from continuing operations available to common stockholders	$ (9,109)	$ (929,413)	$ (64,630)
Net income from discontinued operations available to common stockholders	$ —	$ —	$ 13,062
Denominator:			
Weighted-average common shares outstanding used in computing basic earnings (loss) per share	164,631	160,841	158,040
Diluted earnings (loss) per share			
Numerator:			
Net loss from continuing operations available to common stockholders	$ (9,109)	$ (929,413)	$ (64,630)
Net income from discontinued operations available to common stockholders	$ —	$ —	$ 13,062
Denominator:			
Weighted-average shares used in computing basic earnings (loss) per share	164,631	160,841	158,040
Add dilutive impact of employee equity plans	—	—	—
Weighted-average shares used in computing diluted earnings (loss) per share	164,631	160,841	158,040

The following weighted-average outstanding shares of common stock equivalents were excluded from the computation of the diluted earnings (loss) per share attributable to common stockholders for the periods presented because their effect would have been anti-dilutive or for which the performance condition had not been met at the end of the period:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Total anti-dilutive shares	14,987	11,648	6,476

The calculation of diluted earnings (loss) per share requires us to make certain assumptions related to the use of proceeds that would be received upon the assumed exercise of stock options or proceeds from the employee stock purchase plan.

13. Employee Benefit Plans

401(k) Plan

We maintain a 401(k) matching program for all eligible employees. We, as sponsor of the plan, use an independent third party to provide administrative services to the plan. We have the right to terminate the plan at any time. Employees are fully vested in all contributions to the plan. Our expense related to the plan was as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Employee benefit plan expense	$ 4,830	$ 5,016	$ 4,925

14. Related Party Transactions

Agreements with N-able

In connection with the completion of the Separation on July 19, 2021, the Company entered into several agreements with N-able that, among other things, provide a framework for the Company’s relationship with N-able after the Separation. The following summarizes some of the most significant agreements and relationships that the Company continues to have with N-able.

Separation and Distribution Agreement

The separation and distribution agreement sets forth the Company's agreements with N-able regarding the principal actions taken in connection with the Separation. It also sets forth other agreements that govern aspects of the Company's relationship with N-able following the spin-off, including (i) the manner in which legal matters and claims are allocated and certain liabilities are shared between the Company and N-able; (ii) other matters including transfers of assets and liabilities, treatment or termination of intercompany arrangements and the settlement or extinguishment of certain liabilities and other obligations between N-able and the Company; and (iii) mutual indemnification clauses. The separation and distribution agreement also provides that the Company will be liable and obligated to indemnify N-able for all liabilities based upon, arising out of, or relating to the Cyber Incident other than certain specified expenses for which N-able will be responsible. The term of the separation agreement is indefinite and it may only be terminated with the prior written consent of both SolarWinds and N-able.

Transition Services Agreement

The Company entered into a transition services agreement pursuant to which the Company and N-able provide various services to each other. The services provided include information technology, facilities, certain accounting and other financial functions, and administrative services. The transition services agreement terminated during the year ended December 31, 2022.

Tax Matters Agreement

The Company and N-able entered into a tax matters agreement that governs the parties’ respective rights, responsibilities and obligations with respect to tax liabilities and benefits, tax attributes, the preparation and filing of tax returns, the control of audits and other tax proceedings and other matters regarding taxes.

Software OEM Agreements

The Company and N-able entered into software OEM agreements pursuant to which the Company granted to N-able, and N-able granted to the Company, a non-exclusive and royalty-bearing license to market, advertise, distribute and sublicense certain SolarWinds and N-able software products, respectively, to customers on a worldwide basis. Each agreement has a two year term renewable at the option of the parties for an additional one year term and may be terminated by the applicable licensor in certain instances.

Employee Matters Agreement

The Company and N-able entered into an employee matters agreement that governs SolarWinds’ and N-able's compensation and employee benefit obligations with respect to the employees and other service providers of each company, and generally allocated liabilities and responsibilities relating to employment matters and employee compensation and benefit plans and programs.

Intellectual Property Matters Agreement

The Company and N-able entered into an intellectual property matters agreement pursuant to which each party granted to the other party a generally irrevocable, non-exclusive, worldwide, and royalty-free license to use certain intellectual property rights retained by the other party. Under the intellectual property matters agreement, the term for the licensed or sublicensed know-how is perpetual and the term for each licensed or sublicensed patent is until expiration of the last valid claim of such patent. The intellectual property matters agreement will terminate only if SolarWinds and N-able agree in writing to terminate it.

Trademark License Agreement

The Company and N-able entered into a trademark license agreement pursuant to which the Company granted to N-able a generally limited, worldwide, non-exclusive and royalty-free license to use certain trademarks retained by the Company that were used by us in the conduct of our business prior to the separation. The trademark agreement will terminate once N-able ceases to use all of the licensed trademarks.

Software Cross License Agreement

The Company and N-able entered into a software cross license agreement pursuant to which each party granted to the other party a generally perpetual, irrevocable, non-exclusive, worldwide and, subject to certain exceptions, royalty-free license to certain software libraries and internal tools for limited uses. The term of the software cross license agreement will be perpetual unless SolarWinds and N-able agree in writing to terminate the agreement.

The amounts recorded in our consolidated financial statements related to the agreements noted above were insignificant as of and for the years ended December 31, 2023, 2022 and 2021.

15. Income Taxes

U.S. and international components of income (loss) before income taxes were as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
U.S.	$ 75,329	$ (824,064)	$ (130,395)
International	(41,190)	(83,963)	33,456
Income (loss) before income taxes	$ 34,139	$ (908,027)	$ (96,939)

Income tax expense (benefit) was composed of the following:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Current:			
Federal	$ 29,518	$ 14,688	$ (861)
State	4,978	1,374	1,516
International	9,904	4,361	(1,623)
	44,400	20,423	(968)
Deferred:			
Federal	(5,322)	(9,024)	(30,738)
State	(1,076)	454	(3,419)
International	5,246	9,533	2,656
	(1,152)	963	(31,501)
	$ 43,248	$ 21,386	$ (32,469)

The difference between the income tax expense (benefit) derived by applying the federal statutory income tax rate to our income (loss) before income taxes and the amount recognized in our consolidated financial statements is as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Expense (benefit) derived by applying the federal statutory income tax rate to income (loss) before income taxes	$ 7,169	$ (190,686)	$ (20,474)
State taxes, net of federal benefit	2,859	1,182	(2,530)
Permanent items	2,130	963	406
Global intangible low-taxed income	5,368	4,700	—
Foreign-derived intangible income	(1,422)	(335)	(514)
Base erosion and anti-abuse tax	—	—	2,297
Research and experimentation tax credits	(1,796)	(1,862)	(3,438)
Withholding tax	2,628	3,936	2,870
Foreign Tax Credits	(1,184)	(1,116)	(1,269)
Valuation allowance	27,183	30,761	(358)
Stock-based compensation	3,424	5,417	1,510
Effect of foreign operations	(8,228)	4,412	(10,969)
Nondeductible officer compensation	5,117	2,904	—
Goodwill impairment	—	161,110	—
	$ 43,248	$ 21,386	$ (32,469)

The components of the net deferred tax amounts recognized in the accompanying consolidated balance sheets were:

	December 31,	
	2023	2022
	(in thousands)	
Deferred tax assets:		
Allowance for credit losses	$ 131	$ 179
Net operating loss	15,380	16,563
Foreign royalty	—	310
Research and experimentation credits	6,746	6,720
Capitalized research and development	28,215	15,932
Stock-based compensation	7,598	9,703
Intangibles	124,721	116,477
Interest	24,878	15,612
Deferred revenue	3,767	3,332
Unrealized exchange gain	70	267
States	250	79
Leases	12,742	16,002
Other credits	4,235	3,593
Total deferred tax assets	228,733	204,769
Valuation allowance	(78,089)	(47,805)
Deferred tax assets, net of valuation allowance	150,644	156,964
Deferred tax liabilities:		
Property and equipment	1,115	3,072
Prepaid expenses	2,646	3,176
Debt costs	599	1,201
Leases	7,827	16,153
Accrued expenses	7,166	7,022
Total deferred tax liabilities	19,353	30,624
Net deferred tax asset (liability)	$ 131,291	$ 126,340

At December 31, 2023 and 2022, we had net operating loss carry forwards for U.S. federal income tax purposes of approximately $34.0 million and $38.9 million, respectively, of which $4.5 million and $4.9 million, respectively, are limited due to IRC Section 382 limitations. These U.S. federal net operating losses are available to offset future U.S. federal taxable income and begin to expire at various dates from 2024 through 2037.

At December 31, 2023 and 2022, we had net operating loss carry forwards for certain state income tax purposes of approximately $42.1 million and $36.0 million, respectively, some of which are limited due to IRC Section 382. These state net operating losses are available to offset future state taxable income and begin to expire in 2031.

At December 31, 2023 and 2022, we had foreign net operating loss carry forwards of approximately $14.4 million and $23.8 million, respectively, which are available to offset future foreign taxable income, and begin to expire in 2024.

At December 31, 2023 and 2022, we had foreign research and experimentation tax credit carryforwards of approximately $2.1 million and $1.3 million, respectively, which begin to expire in 2025.

We establish valuation allowances when necessary to reduce deferred tax assets to amounts expected to be realized. As of December 31, 2023 and 2022, we have recorded a valuation allowance of $78.1 million and $47.8 million, respectively. The valuation allowance is related to the U.S. and the deferred tax assets of acquired entities.

The U.S. Tax Cuts and Jobs Act of 2017, or the Tax Act, imposed a mandatory transition tax on accumulated foreign earnings as of December 31, 2017 and created a new territorial tax system in which we recognize the tax impact of including certain foreign earnings in U.S. taxable income as a period cost. For the years ended December 31, 2023 and 2022, we incurred income tax expense under the global intangible low-taxed income, or GILTI, provisions and have treated it as a component of income tax expense in the period incurred. As a result of the Tax Act, all foreign earnings are subject to a territorial tax system and dividends received deduction regime in the U.S. As of December 31, 2023, undistributed earnings of certain foreign subsidiaries of approximately $550.9 million are intended to be permanently reinvested outside the U.S. Accordingly, no provision for foreign withholding tax or state income taxes associated with a distribution of these earnings has been made. Determination of the amount of the unrecognized deferred tax liability on these unremitted earnings is not practicable. We have recorded an immaterial amount of deferred income taxes for state income taxes related to the earnings that are not indefinitely reinvested.

Gross unrecognized tax benefits, all of which, if recognized, would affect our effective tax rate were as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Gross unrecognized tax benefits	$ 14,759	$ 14,113	$ 17,943

At December 31, 2023 and 2022, we had accrued interest and penalties related to unrecognized tax benefits of approximately $4.8 million and $3.6 million, respectively.

The aggregate changes in the balance of our gross unrecognized tax benefits, excluding accrued interest and penalties, were as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Balance, beginning of year	$ 14,113	$ 17,943	$ 27,439
Increases for tax positions related to the current year	920	374	929
Increases for tax positions related to prior years	484	38	—
Decreases for tax positions related to prior years	—	(2,938)	(4,402)
Settlement with taxing authorities	—	(1,009)	—
Reductions due to lapsed statute of limitations	(758)	(295)	(6,023)
Balance, end of year	$ 14,759	$ 14,113	$ 17,943

It is reasonably possible that the amount of unrecognized tax benefit could decrease by up to $9.4 million within the next 12 months as we expect to conclude the IRS examination for the tax years 2013 through the period ending February 2016. Additionally, the related accrued interest could decrease by up to $4.4 million.

We file U.S., state and foreign income tax returns in jurisdictions with varying statutes of limitations. The 2013 through February 2016 and 2020 through 2023 tax years generally remain open and subject to examination by federal tax authorities. The 2015 through 2023 tax years generally remain open and subject to examination by the state tax authorities and foreign tax authorities. We are currently under examination by the IRS for the tax years 2013 through the period ending February 2016, and expect this audit to be fully resolved in 2024. We are currently under audit by the Texas Comptroller for the 2015 through 2020 tax years. The audit by the Indian Tax Authority for the 2017 tax year was closed with no changes. We are currently under audit by the Philippines Bureau of Internal Revenue for the 2022 tax year. We are not currently under audit in any other taxing jurisdictions.

On July 27, 2015, the U.S. Tax Court issued an opinion in Altera Corp. v. Commissioner related to the treatment of stock-based compensation expense in an intercompany cost-sharing arrangement. In February 2016, the U.S. Internal Revenue Service appealed the decision to the U.S. Court of Appeals for the Ninth Circuit. On June 7, 2019, the Ninth Circuit reversed the 2015 decision of the U.S. Tax Court. On February 10, 2020, Altera Corp. submitted a petition for writ of certiorari to the U.S. Supreme Court. On June 22, 2020, the Supreme Court of the United States denied Altera's petition to review the Ninth Circuit’s decision. Due to the uncertainty surrounding the status of the current regulations and questions related to the scope of potential benefits or obligations, we have not recorded any benefit or expense related to the court's decision as of December 31, 2023. We will continue to monitor ongoing developments and potential impacts to our consolidated financial statements.

16. Commitments and Contingencies

Cyber Incident

As previously disclosed, we were the victim of a cyberattack on our Orion Software Platform and internal systems, or the Cyber Incident. We, together with our partners, have undertaken extensive measures to investigate, contain, eradicate, and remediate the Cyber Incident.

Expenses Incurred

We recorded pre-tax expenses related to the Cyber Incident as follows:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Cost of recurring revenue	$ —	$ 178	$ 2,153
Sales and marketing	—	130	1,638
Research and development	—	2	52
General and administrative	17,714	56,125	45,281
Total gross expenses related to the Cyber Incident	17,714	56,435	49,124
Less: proceeds received or expected to be received under our insurance coverage	(19,798)	(30,202)	(16,010)
Total net expenses (proceeds) related to the Cyber Incident	$ (2,084)	$ 26,233	$ 33,114

General and administrative expense is presented net of insurance proceeds received and expected insurance proceeds for costs we believe are reimbursable and probable of recovery in our consolidated statements of operations. Expenses include costs to investigate and remediate the Cyber Incident, costs of lawsuits and investigations related thereto, including settlement costs, legal and other professional services, and consulting services provided to customers at no charge, all of which were expensed as incurred, as well as estimated loss contingencies.

Litigation, Claims and Government Investigations

As a result of the Cyber Incident, we have been subject to multiple lawsuits and investigations. A consolidated putative class action lawsuit alleging violations of the federal securities laws was filed against us and certain of our current and former officers. The complainants sought certification of a class of all persons who purchased or otherwise acquired our common stock between October 18, 2018 and December 17, 2020 and sought unspecified monetary damages, costs and attorneys' fees. On October 28, 2022, the parties entered into a binding settlement term sheet with respect to the securities class action lawsuit, and lead plaintiff filed the parties' Stipulation and Agreement of Settlement with the court on December 8, 2022. On March 2, 2023, we paid $26 million to fund claims submitted by class members, the legal fees of plaintiffs' counsel and the costs of administering the settlement. On July 28, 2023, the court held a final settlement hearing after which the court entered an order and final judgment approving the settlement. The settlement resolved all claims asserted against us and the other named defendants in connection with the securities class action litigation and contained provisions that the settlement does not constitute an admission, concession, or finding of any fault, liability, or wrongdoing of any kind by us or any defendant. The settlement sum was reimbursed entirely by applicable directors' and officers' liability insurance. In addition, two shareholder derivative actions were filed, purportedly on behalf of the Company, one in the Western District of Texas and one in the Delaware Court of Chancery, in each case asserting breach of duty and other claims against certain of our current and former officers and directors in connection with the Cyber Incident. On October 13, 2022, the Delaware Court of Chancery entered an order dismissing the case in that court with prejudice, and on May 17, 2023, the Supreme Court of the State of Delaware entered an order affirming the Delaware Court of Chancery's judgment. On July 12, 2023, the United States District Court for the Western District of Texas entered a final judgment dismissing the case in that court without prejudice.

In addition, we have been subject to several investigations and inquiries by U.S. regulatory authorities related to the Cyber Incident, including from the Department of Justice and the SEC, although currently the only active matter relates to the SEC litigation. On October 30, 2023, the SEC filed a civil complaint, or the SEC Complaint, in the United States District Court for the Southern District of New York naming us and our Chief Information Security Officer, or CISO, as defendants. The SEC Complaint alleges violations of the Exchange Act and the Securities Act relating to our cybersecurity disclosures and public statements, as well as our internal controls and disclosure controls and procedures. The SEC Complaint seeks permanent injunctions against the Company and our CISO, disgorgement of profits, civil penalties and a permanent officer-and-director bar against our CISO. We accrued an immaterial loss contingency related to the SEC investigation during the year ended December 31, 2023. We maintain that our disclosures, public statements, controls and procedures were appropriate, and intend to continue to vigorously defend ourselves. We have incurred, and expect to continue to incur, costs and other expenses in connection with this matter, and the ultimate results of the action initiated by the SEC Complaint are unknown at this time. The Company will continue to evaluate information as it becomes known and will adjust our estimate for losses or will record additional losses at the time or times when it is both probable that a loss has been incurred and the amount of the loss is reasonably estimable. Losses associated with any adverse judgments, settlements, penalties or other resolutions of the SEC Complaint could be material to our business, results of operations, financial condition or cash flows in future periods.

Additional lawsuits and claims related to the Cyber Incident may be asserted by or on behalf of customers, stockholders or others seeking damages or other related relief and additional inquiries from governmental agencies may be received or investigations by governmental agencies commenced.

Insurance Coverage

We maintain $15 million of cybersecurity insurance coverage which renews annually. In addition, we maintain $50 million of directors and officers liability insurance coverage to reduce our exposure to our indemnification obligations for certain expenses incurred by our directors and officers which renews annually. As of December 31, 2023, all proceeds from our cybersecurity insurance and our directors and officers liability insurance relating to the losses incurred as a result of the Cyber Incident have been received. As of December 31, 2022, we had a loss recovery asset of $30.2 million for insurance proceeds deemed probable of recovery which was included in prepaid and other current assets in our consolidated balance sheet for such period.

Indemnification

In connection with the Separation, we entered into a separation and distribution agreement and related agreements with N-able to govern the Separation and related transactions and the relationship between the respective companies going forward. The separation and distribution agreement provides for certain indemnity and liability obligations, including that we will indemnify N-able for all liabilities based upon, arising out of or related to the Cyber Incident other than certain specified expenses for which N-able will be responsible. The amount of the indemnification liability, if any, cannot be determined and has not been recorded in our consolidated financial statements as of December 31, 2023.

Purchase Commitments

We have entered into non-cancellable minimum or fixed purchase commitments for third-party cloud infrastructure platform and hosting services.

The expected payments for our minimum purchase commitments at December 31, 2023 were as follows:

	(in thousands)
2024	$ 25,268
2025	32,500
2026	34,500
2027	4,500
Total purchase commitments	$ 96,768

Other Matters

In addition to the Cyber Incident described above, from time to time we are involved in litigation arising from the normal course of business. In management's opinion, this litigation is not expected to have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

17. Operating Segments and Geographic Information

We operate as a single segment. Our chief operating decision-maker, or CODM, is considered to be our Chief Executive Officer. The chief operating decision-maker allocates resources and assesses performance of the business at the consolidated level.

The authoritative guidance for disclosures about segments of an enterprise establishes standards for reporting information about operating segments. It defines operating segments as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision-maker in deciding how to allocate resources and in assessing performance. Our Chief Executive Officer manages the business as a multi-product business that utilizes its model to deliver software products to customers regardless of their geography or IT environment. Operating results including discrete financial information and profitability metrics are reviewed at the consolidated entity level for purposes of making resource allocation decisions and for evaluating financial performance. Accordingly, we considered ourselves to be in a single operating and reporting segment structure.

We based revenue by geography on the shipping address of each customer. Other than the United States, no single country accounted for 10% or more of our total revenues during these periods. The following tables set forth revenue and net long-lived assets by geographic area:

	Year Ended December 31,		
	2023	2022	2021
		(in thousands)	
Revenue			
United States, country of domicile	$ 494,971	$ 472,834	$ 469,791
International	263,769	246,533	248,841
Total revenue	$ 758,740	$ 719,367	$ 718,632

	December 31,	
	2023	2022
	(in thousands)	
Long-lived assets, net		
United States, country of domicile	$ 12,743	$ 19,174
Philippines	2,419	3,508
All other international	4,507	3,952
Total long-lived assets, net	$ 19,669	$ 26,634

SOLARWINDS CORPORATION

FINANCIAL STATEMENT SCHEDULE

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

	Beginning Balance	Additions (Charge / (Credited) to Expense)	Deductions (Write-offs, net of Recoveries)	Ending Balance
		(in thousands)		
Allowance for credit losses, customers and other:				
Year ended December 31, 2021	$ 1,985	$ 23	$ 1,532	$ 476
Year ended December 31, 2022	476	951	254	1,173
Year ended December 31, 2023	1,173	(389)	41	743
Tax valuation allowances:				
Year ended December 31, 2021	$ 14,481	$ —	$ 2,545	$ 11,936
Year ended December 31, 2022	11,936	35,869	—	47,805
Year ended December 31, 2023	47,805	30,284	—	78,089

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

There were no changes in or disagreements with our accountants on accounting and financial disclosure matters.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2023. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation of our disclosure controls and procedures as of December 31, 2023, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable assurance level.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;

- 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
- 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 our degree of compliance with the policies or procedures may deteriorate.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of the end of the period covered by this report based on the framework in *Internal Control— Integrated Framework* issued in 2013 by the Committee of Sponsoring Organization of the Treadway Commission. Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective as of the end of the period covered by this report.

Our independent registered public accounting firm, which has audited our consolidated financial statements included in this Form 10-K, has also audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2023, and issued an audit report on our internal controls over financial reporting, which is included in Part II, Item 8 of this report.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Certain information required by Part III is omitted from this report. We intend to include such information in our definitive proxy statement ("Proxy Statement") related to our 2024 annual meeting of stockholders pursuant to Regulation 14A under the Exchange Act, which we intend to file with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year covered by this report.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Except as set forth below, the information required by this Item will be included in our Proxy Statement and is incorporated herein by reference.

Code of Business Ethics and Conduct

Our board of directors has adopted a code of business conduct and ethics for all employees, including our Chief Executive Officer and President, Chief Financial Officer, and other executive and senior financial officers. The code of business ethics and conduct is available on the investor relations portion of our website at www.solarwinds.com. To the extent and in the manner required by applicable rules of the SEC and NYSE, we intend to disclose any amendments to our code of business conduct and ethics, or waivers of its requirements, on our website or in filings under the Exchange Act. Our website and the contents therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item will be included in our Proxy Statement and is incorporated herein by reference.

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

The information required by this Item will be included in our Proxy Statement and is incorporated herein by reference.

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

The information required by this Item will be included in our Proxy Statement and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item will be included in our Proxy Statement and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

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

1. *Financial Statements.*

The following financial statements are included as Part II, Item 8 of this Annual Report on Form 10-K.

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Report of Independent Registered Public Accounting Firm (PCAOB ID 238)	69
Consolidated Balance Sheets	71
Consolidated Statements of Operations	72
Consolidated Statements of Comprehensive Income (Loss)	73
Consolidated Statements of Stockholders' Equity	74
Consolidated Statements of Cash Flows	75
Notes to Consolidated Financial Statements	77

2. *Financial Statement Schedules.*

The following financial statement schedule is included as Part II, Item 8 of this Annual Report on Form 10-K and should be read in conjunction with the consolidated financial statements of SolarWinds Corporation filed as part of this Report:

- Schedule II—Valuation and Qualifying Accounts

Schedules other than that listed above have been omitted since they are either not required or not applicable or because the information required is included in the consolidated financial statements included elsewhere herein or the notes thereto.

3. *Exhibits.*

EXHIBIT INDEX

		Incorporated by Reference			
Exhibit Number	**Exhibit Description**	**Form**	**File No.**	**Exhibit**	**Filing Date**
2.1	Share Purchase Agreement, dated as of May 8, 2016, among Project Lake Holdings, Ltd., SolarWinds Holdings, Inc., LOGICnow Holding S.à r.l., and LOGICnow Holdings Ltd.	S-1	333-227479	2.1	9/21/2018
2.2	Separation and Distribution Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	2.1	7/20/2021
3.1	Third Amended and Restated Certificate of Incorporation as currently in effect	10-Q	001-38711	3.1	11/27/2018
3.2	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation	8-K	001-38711	3.1	7/26/2021
3.3	Amended and Restated Bylaws as currently in effect	10-Q	001-38711	3.2	11/27/2018
4.1	Amended and Restated Stockholders' Agreement, dated October 18, 2018, by and among the Company and the stockholders' named therein	10-Q	001-38711	4.1	11/27/2018
4.1.1	First Amendment to Amended and Restated Stockholders' Agreement among the Company and the stockholders named therein, dated November 18, 2021	8-K	001-38711	10.1	11/19/2021

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
4.2	Registration Rights Agreement, dated as of February 5, 2016, by and among the registrant and certain stockholders named therein	S-1	333-227479	4.3	9/21/2018
4.3	Description of Registrant's Securities Registered under Section 12 of the Exchange Act	10-K	001-38711	4.3	2/25/2022
10.1	First Lien Credit Agreement, dated as of February 5, 2016, by and among SolarWinds Holdings, Inc., as borrower, SolarWinds Intermediate Holdings I, Inc., the other guarantors party thereto, Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, Goldman Sachs Lending Partners LLC, Credit Suisse Securities (USA) LLC, Macquarie Capital (USA) Inc. and Nomura Securities International, Inc., as joint lead arrangers and joint bookrunners, Goldman Sachs Lending Partners LLC, as syndication agent, and Goldman Sachs Lending Partners LLC, as documentation agent	S-1	333-227479	10.1	9/21/2018
10.1.1	Amendment No. 1 to First Lien Credit Agreement, dated as of May 27, 2016, by and among SolarWinds Holdings, Inc., as borrower, SolarWinds Intermediate Holdings I, Inc., the other guarantors party thereto, Credit Suisse AG, Cayman Islands Branch, as administrative agent, and the lenders party thereto	S-1	333-227479	10.1.1	9/21/2018
10.1.2	Amendment No. 2 to First Lien Credit Agreement, dated as of August 18, 2016, by and among SolarWinds Holdings, Inc., as borrower, SolarWinds Intermediate Holdings I, Inc., the other guarantors party thereto, Credit Suisse AG, Cayman Islands Branch, as administrative agent, and the lenders party thereto	S-1	333-227479	10.1.2	9/21/2018
10.1.3	Amendment No. 3 to First Lien Credit Agreement, dated as of February 21, 2017, by and among SolarWinds Holdings, Inc., as borrower, SolarWinds Intermediate Holdings I, Inc., the other guarantors party thereto, Credit Suisse AG, Cayman Islands Branch, as administrative agent, and the lenders party thereto	S-1	333-227479	10.1.3	9/21/2018
10.1.4	Amendment No. 4 to First Lien Credit Agreement, dated as of March 15, 2018, by and among SolarWinds Intermediate Holdings I, Inc., SolarWinds Holdings, Inc. and Credit Suisse AG, Cayman Islands Branch, as administrative agent, and the lenders party thereto	S-1	333-227479	10.1.4	9/21/2018
10.1.5	Amendment No. 5 to First Lien Credit Agreement, dated as of July 27, 2021, by and among SolarWinds Intermediate Holdings I, Inc., SolarWinds Holdings, Inc. and Credit Suisse AG, Cayman Islands Branch, as administrative agent, and the lenders party thereto	8-K	001-38711	10.1	7/30/2021
10.1.6	Amendment No. 6 to First Lien Credit Agreement, dated as of November 23, 2022, by and among SolarWinds Intermediate Holdings I, Inc., SolarWinds Holdings, Inc. and Credit Suisse AG, Cayman Islands Branch, as administrative agent, and the lenders party thereto	8-K	001-38711	10.1	11/28/2022

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.3	Management Fee Agreement, dated as of February 5, 2016, among the registrant, SolarWinds Intermediate Holdings II, Inc., SolarWinds Intermediate Holdings I, Inc., SolarWinds Holdings, Inc., SolarWinds MSP Holdings Limited, SolarWinds International Holdings, Ltd., SolarWinds, Inc., Silver Lake Management Company IV, L.L.C., Thoma Bravo, LLC and Thoma Bravo Partners XI, L.P.	S-1	333-227479	10.3	9/21/2018
10.4	Form of Indemnification Agreement between the registrant and each of its directors and executive officers	S-1	333-227479	10.4	9/21/2018
10.5#	SolarWinds Corporation Equity Plan, dated as of June 24, 2016, and forms of agreement thereunder	S-1	333-227479	10.5	9/21/2018
10.6#	SolarWinds Corporation 2018 Equity Incentive Plan and forms of agreements thereunder	10-Q	001-38711	10.1	11/27/2018
10.7#	SolarWinds Corporation 2018 Employee Stock Purchase Plan	10-K	001-38711	10.7	2/25/2019
10.8#	Form of SolarWinds Corporation Bonus Plan	S-1	333-227479	10.8	9/21/2018
10.9#	Amended and Restated Employment Agreement, dated as of April 27, 2016, between SolarWinds Worldwide, LLC and J. Barton Kalsu	S-1	333-227479	10.10	9/21/2018
10.10#	Employment Agreement, dated as of September 15, 2015, between SolarWinds Worldwide, LLC and Jason Bliss	10-Q	001-38711	10.1	5/8/2020
10.10.1#	Amendment to Employment Agreement, dated April 27, 2016, between SolarWinds Worldwide, LLC and Jason Bliss	10-Q	001-38711	10.2	5/8/2020
10.11#	Employment Agreement, dated as of December 7, 2020, between SolarWinds Corporation and Sudhakar Ramakrishna.	8-K	001-38711	10.1	12/9/2020
10.11.1#	Amendment to Employment Agreement, dated as of January 4, 2021, between SolarWinds Corporation and Sudhakar Ramakrishna	8-K	001-38711	10.1	1/6/2021
10.11.2#	Second Amendment to Employment Agreement, dated March 9, 2021, between SolarWinds Corporation and Sudhakar Ramakrishna	8-K	001-38711	10.1	3/11/2021
10.12#	Employment Agreement, dated as of March 4, 2021, between SolarWinds Worldwide, LLC and Rohini Kasturi	10-K	001-38711	10.12	2/22/2023
10.13#	Contractor Agreement, effective as of November 15, 2023, between Rohini Kasturi and SolarWinds Worldwide, LLC	8-K	001-38711	10.1	8/30/2023
10.14#	Employment Agreement, dated as of February 15, 2022, between SolarWinds Worldwide, LLC and Andrea Webb	10-K	001-38711	10.13	2/22/2023
10.15	Transition Services Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	10.1	7/20/2021

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.16	Tax Matters Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	10.2	7/20/2021
10.17	Employee Matters Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	10.3	7/20/2021
10.18	Intellectual Property Matters Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	10.4	7/20/2021
10.19	Trademark License Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	10.5	7/20/2021
10.20	Software Cross-License Agreement, dated as of July 16, 2021, by and between SolarWinds Corporation and N-able, Inc.	8-K	001-38711	10.6	7/20/2021
21.1*	List of subsidiaries of the registrant				
23.1*	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm				
31.1*	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2*	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
32.1**	Certifications of Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer pursuant to Exchange Act Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
97*	SolarWinds Corporation Recovery of Erroneously Awarded Compensation				
101.INS	Inline XBRL Instance Document (formatted as Inline XBRL)				
101.SCH	Inline XBRL Taxonomy Extension Schema Document				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)				

# Indicates management contract or compensatory plan or arrangement.

* Filed herewith

** The certifications attached as Exhibit 32.1 accompanying this Annual Report on Form 10-K, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing

ITEM 16. FORM 10–K SUMMARY

None.

SOLARWINDS CORPORATION

SIGNATURES

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

SOLARWINDS CORPORATION

Dated:	February 16, 2024	By:	/s/ J. Barton Kalsu
			J. Barton Kalsu **Chief Financial Officer** **(Principal Financial and Accounting Officer)**

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

Signature	Title	Date
/s/ Sudhakar Ramakrishna **Sudhakar Ramakrishna**	President and Chief Executive Officer and Director (Principal Executive Officer)	February 16, 2024
/s/ J. Barton Kalsu **J. Barton Kalsu**	Chief Financial Officer (Principal Financial and Accounting Officer)	February 16, 2024
/s/ Cathleen Benko **Cathleen Benko**	Director	February 16, 2024
/s/ William Bock **William Bock**	Director	February 16, 2024
/s/ Kenneth Y. Hao **Kenneth Y. Hao**	Director	February 16, 2024
/s/ Dennis Howard **Dennis Howard**	Director	February 16, 2024
/s/ Catherine Kinney **Catherine Kinney**	Director	February 16, 2024
/s/ Doug Smith **Doug Smith**	Director	February 16, 2024
/s/ Easwaran Sundaram **Easwaran Sundaram**	Director	February 16, 2024
/s/ Michael Widmann **Michael Widmann**	Director	February 16, 2024

Exhibit 21.1

SUBSIDIARIES OF THE REGISTRANT

Monalytic, Inc. (Florida)
Pingdom AB (Sweden)
SolarWinds Canada Corporation (Nova Scotia)
SolarWinds Czech s.r.o. (Czech Republic)
SolarWinds EMEA Limited (Ireland)
SolarWinds France SAS (France)
SolarWinds Holdings, Inc. (Delaware)
SolarWinds India Private Limited (India)
SolarWinds Intermediate Holdings I, Inc. (Delaware)
SolarWinds Intermediate Holdings II, Inc. (Delaware)
SolarWinds International Holdings, Ltd. (Cayman Islands)
SolarWinds ITSM Israel Ltd. (Israel)
SolarWinds ITSM US, Inc. (Delaware)
SolarWinds Japan K.K. (Japan)
SolarWinds North America, Inc. (Delaware)
SolarWinds Poland sp. Z o.o (Poland)
SolarWinds Software Asia Pte. Ltd. (Singapore)
SolarWinds Software Australia Pty. Ltd. (Australia)
SolarWinds Software Europe (Holdings) Limited (Ireland)
SolarWinds Software Europe Designated Activity Company (Ireland)
SolarWinds Software Germany GmbH (Germany)
SolarWinds Software South Korea LLC (South Korea)
SolarWinds Software UK Limited (United Kingdom)
SolarWinds Software Yazılım Limited Şirketi (Turkey)
SolarWinds Sweden Holdings AB (Sweden)
SolarWinds Worldwide, LLC (Delaware)
SWI Software Trading Middle East LLC (United Arab Emirates- Dubai)

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-227937, 333-230814, 333-235453, 333-236602, 333-253717 and 333-263028) of SolarWinds Corporation of our report dated February 16, 2024, relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Austin, Texas
February 16, 2024

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sudhakar Ramakrishna, certify that:

1. I have reviewed this annual report on Form 10-K of SolarWinds Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;
   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	February 16, 2024	By:	/s/ Sudhakar Ramakrishna
			Sudhakar Ramakrishna
			President and Chief Executive Officer
			(Principal Executive Officer)

Exhibit 31.2

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, J. Barton Kalsu, certify that:

1. I have reviewed this annual report on Form 10-K of SolarWinds Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;
    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	February 16, 2024	By:	/s/ J. Barton Kalsu
			J. Barton Kalsu
			Chief Financial Officer
			(Principal Financial Officer)

Exhibit 32.1

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

In connection with the Annual Report on Form 10-K of SolarWinds Corporation for the year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Sudhakar Ramakrishna, as Principal Executive Officer of SolarWinds Corporation, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of SolarWinds Corporation.

Date:	February 16, 2024	By:	/s/ Sudhakar Ramakrishna
			Sudhakar Ramakrishna
			President and Chief Executive Officer
			(Principal Executive Officer)

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

In connection with the Annual Report on Form 10-K of SolarWinds Corporation for the year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, J. Barton Kalsu, as Principal Financial Officer of SolarWinds Corporation, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of SolarWinds Corporation.

Date:	February 16, 2024	By:	/s/ J. Barton Kalsu
			J. Barton Kalsu
			Chief Financial Officer
			(Principal Financial Officer)

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

Exhibit 97

SOLARWINDS CORPORATION
RECOVERY OF ERRONEOUSLY AWARDED INCENTIVE COMPENSATION POLICY

(Adopted Effective October 2, 2023)

1. INTRODUCTION

SolarWinds Corporation (the "***Company***") is adopting this policy (this "***Policy***") to provide for the Company's criteria and process of recovering certain Incentive Compensation (as defined below) erroneously awarded to Affected Officers (as defined below) under certain circumstances.

This Policy is administered by the Compensation Committee (the "***Committee***") of the Company's Board of Directors (the "***Board***"). The Committee shall have full and final authority to make any and all determinations required under this Policy. Any determination by the Committee with respect to this Policy shall be final, conclusive and binding on all parties. The Board may amend or terminate this Policy at any time.

This Policy is intended to comply with Section 10D of the Securities and Exchange Act of 1934, as amended (the "***Exchange Act***"), Rule 10D-1 thereunder, and the applicable rules of any national securities exchange on which the Company's securities are listed (the "***Exchange***") and will be interpreted and administered consistent with that intent.

2. EFFECTIVE DATE

This Policy shall apply to all Incentive Compensation paid or awarded on or after the date of adoption of this Policy, and to the extent permitted or required by applicable law.

3. DEFINITIONS

For purposes of this Policy, the following terms shall have the meanings set forth below:

"***Affected Officer***" means any current or former "officer" as defined in Exchange Act Rule 16a-1, and any other senior executives as determined by the Committee.

"***Erroneously Awarded Compensation***" means the amount of Incentive Compensation received that exceeds the amount of Incentive Compensation that otherwise would have been received had it been determined based on the Restatement, computed without regard to any taxes paid. In the case of Incentive Compensation based on stock price or total shareholder return, where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the Restatement, the amount shall reflect a reasonable estimate of the effect of the Restatement on the stock price or total shareholder return upon which the Incentive Compensation was received, as determined by the Committee in its sole discretion.

"***Financial Reporting Measure***" means any measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures, whether or not such measure is presented within the financial statements or included in a filing with the Securities and Exchange Commission. Stock price and total shareholder return are Financial Reporting Measures.

"***Incentive Compensation***" means any compensation that is awarded, earned or vested based in whole or in part on the attainment of a Financial Reporting Measure. For purposes of clarity, base salaries, bonuses or equity awards paid solely upon satisfying one or more subjective standards, strategic or operational measures, or continued employment are not considered Incentive Compensation, unless such awards were granted, paid or vested based in part on a Financial Reporting Measure.

"***Restatement***" means an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements (i.e., a “Big R” restatement), or that would result in a material misstatement if the error was corrected in the current period or left uncorrected in the current period (i.e., a “little r” restatement).

4. RECOVERY

If the Company is required to prepare a Restatement, the Company shall seek to recover and claw back reasonably promptly all Erroneously Awarded Compensation that is received by an Affected Officer:

(i) after beginning service as an Affected Officer;

(ii) who serves as an Affected Officer at any time during the performance period for that Incentive Compensation;

(iii) while the Company has a class of securities listed on the Exchange; and

(iv) during the three completed fiscal years immediately preceding the date on which the Company was required to prepare the Restatement (including any transition period within or immediately following those years that results from a change in the Company’s fiscal year, provided that a transition period of nine to 12 months will be deemed to be a completed fiscal year).

If, after the release of earnings for any period for which a Restatement subsequently occurs and prior to the announcement of the Restatement for such period, the Affected Officer sold any securities constituting, or any securities issuable on exercise, settlement or exchange of any equity award constituting Incentive Compensation, the excess of (a) the actual aggregate sales proceeds from the Affected Officer’s sale of those shares, over (b) the aggregate sales proceeds the Affected Officer would have received from the sale of those shares at a price per share determined appropriate by the Committee in its discretion to reflect what the Company’s common stock price would have been if the Restatement had occurred prior to such sales shall be deemed Erroneously Awarded Compensation; provided, however, that for purposes of determining the amount of Erroneously Awarded Compensation, the aggregate sales proceeds determined by the Committee under clause (b) with respect to shares acquired upon exercise of an option shall not be less than the aggregate exercise price paid for those shares.

For purposes of this Policy:

- Erroneously Awarded Compensation is deemed to be received in the Company’s fiscal year during which the Financial Reporting Measure specified in the Incentive Compensation is attained, even if the payment or grant of the Incentive Compensation occurs after the end of that period; and

- the date the Company is required to prepare a Restatement is the earlier of (x) the date the Board, the Committee or any officer of the Company authorized to take such action concludes, or reasonably should have concluded, that the Company is required to prepare the Restatement, or (y) the date a court, regulator, or other legally authorized body directs the Company to prepare the Restatement.

For purposes of clarity, in no event shall the Company be required to award any Affected Officers an additional payment or other compensation if the Restatement would have resulted in the grant, payment or vesting of Incentive Compensation that is greater than the Incentive Compensation actually received by the Affected Officer. The recovery of Erroneously Awarded Compensation is not dependent on if or when the Restatement is filed.

5. SOURCES OF RECOVERY

To the extent permitted by applicable law, the Committee may, in its discretion, seek recovery from the Affected Officer(s) through any means it determines, which may include any of the following sources: (i) prior Incentive Compensation payments; (ii) future payments of Incentive Compensation; (iii) cancellation of outstanding Incentive Compensation; (iv) direct repayment; and (v) cancellation or forfeiture of other securities held by the Affected Officer. To the extent permitted by applicable law, the Company may offset such amount against any compensation or other amounts owed by the Company to the Affected Officer.

6. LIMITED EXCEPTIONS TO RECOVERY

Notwithstanding the foregoing, the Committee, in its discretion, may choose to forgo recovery of Erroneously Awarded Compensation under the following circumstances, provided that the Committee (or a majority of the independent members of the Board) has made a determination that recovery would be impracticable because:

(i) The direct expense paid to a third party to assist in enforcing this Policy would exceed the recoverable amounts; provided that the Company has made a reasonable attempt to recover such Erroneously Awarded Compensation, has documented such attempt and has (to the extent required) provided that documentation to the Exchange;

(ii) Recovery would violate home country law where the law was adopted prior to November 28, 2022, and the Company provides an opinion of home country counsel to that effect to the Exchange that is acceptable to the Exchange; or

(iii) Recovery would likely cause an otherwise tax-qualified retirement plan to fail to meet the requirements of the Internal Revenue Code of 1986, as amended.

7. INDEMNIFICATION AND INSURANCE

The Company is not permitted to indemnify or reimburse any Affected Officer against the recovery of erroneously awarded compensation. In addition, the Company is prohibited from paying the premiums on an insurance policy that would cover an Affected Officer’s potential clawback obligations.

8. SEVERABILITY

If any provision of this Policy or the application of any such provision to any Affected Officer shall be adjudicated to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Policy, and the invalid, illegal or unenforceable provisions shall be deemed amended to the minimum extent necessary to render any such provision or application enforceable.

9. NO IMPAIRMENT OF OTHER REMEDIES

This Policy does not preclude the Company from taking any other action to enforce an Affected Officer’s obligations to the Company, including termination of employment, institution of civil proceedings, or reporting of any misconduct to appropriate government authorities. The Company will comply with the disclosure requirements related to this Policy under Section 10D of the Exchange Act and applicable listing rules of the Exchange. This Policy is in addition to the requirements of Section 304 of the Sarbanes-Oxley Act of 2002 that are applicable to the Company’s Chief Executive Officer and Chief Financial Officer.

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