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, 2018
or

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

For the transition period from to
Commission File Number: 001-38711

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	**Name of Each Exchange on Which Registered**
Common stock, $0.001 par value	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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☑ No

As of June 30, 2018, the last business day of the registrant's most recently completed second fiscal quarter, the registrant's equity was not listed on a domestic exchange or over-the-counter market. The registrant's common stock began trading on the New York Stock Exchange on October 19, 2018.

On February 15, 2019 , 309,942,574 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 2019 Annual Meeting of Stockholders to be filed within 120 days of the registrant's fiscal year ended December 31, 2018 (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 of our adoption of the new revenue recognition standard on our financial results;
- expectations regarding investment in product development and our expectations about the results of those efforts;
- expectations concerning acquisitions and opportunities resulting from our acquisitions;
- expectations regarding hiring additional personnel globally in the areas of sales and marketing and research and development;
- expectations regarding our international earnings and investment of those earnings in international operations;
- expectations regarding our capital expenditures; 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 could cause or contribute to such differences include, but are not limited to, the following: (a) the inability to generate significant volumes of high quality sales leads from our digital marketing initiatives and convert such leads into new business at acceptable conversion rates; (b) the inability to sell products to new customers or to sell additional products or upgrades to our existing customers; (c) any decline in our renewal or net retention rates; (d) our inability to successfully identify, complete, and integrate acquisitions and manage our growth effectively; (e) risks associated with our international operations; (f) our status as a controlled company; (g) the possibility that general economic conditions or uncertainty cause information technology spending to be reduced or purchasing decisions to be delayed; (h) the timing and success of new product introductions and product upgrades by SolarWinds or its competitors; (i) the possibility that our operating income could fluctuate and may decline as percentage of revenue as we make further expenditures to expand our operations in order to support additional growth in our business; (j) potential foreign exchange gains and losses related to expenses and sales denominated in currencies other than the functional currency of an associated entity; and (k) such other risks and uncertainties described in the section titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K. 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 and, as applicable, their co-investors. 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 information technology, or IT, infrastructure management software. Our products give organizations worldwide, regardless of type, size or IT infrastructure complexity, the power to monitor and manage the performance of their IT environments, whether on-premise, in the cloud, or in hybrid models. We combine powerful, scalable, affordable, easy to use products with a high-velocity, low-touch sales model to grow our business while also generating significant cash flow.

Our business is focused on building products that enable technology professionals to manage "all things IT." We continuously engage with technology professionals to understand the challenges they face maintaining high-performing and highly available on-premise, public and private cloud and hybrid IT infrastructures. The insights we gain from engaging with technology professionals allow us to build products that solve well-understood IT management challenges in ways that technology professionals want them solved.

Our approach, which we call the "SolarWinds Model," enables us to market and sell our products directly to network and systems engineers, database administrators, storage administrators, DevOps professionals and managed service providers, or MSPs. These technology professionals have become empowered to influence the selection, and often the purchase, of products needed to rapidly solve the problems they confront.

We serve the entire IT market uniquely and efficiently with our SolarWinds Model. Technology professionals use our products in organizations ranging in size from very small businesses to large enterprises. Our products are designed to do the complex work of monitoring and managing networks, systems and applications across on-premise, cloud and hybrid IT environments without the need for customization or professional services. Many of our products are built on common technology platforms that enable our customers to easily purchase and deploy our products individually or as integrated suites 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 market and sell our products directly to technology professionals with a high-velocity, low-touch, digital marketing and direct inside sales approach that we call "selling from the inside." We have built a highly flexible and analytics-driven marketing model designed to efficiently drive website traffic and high-quality leads. We also engage using our online community, THWACK. This community is designed to train and inform technology professionals about our products, keep us connected to them and provide network effects to amplify word-of-mouth marketing for our products. Our sales team uses a prescriptive approach designed to manage these leads and quickly sell our products pursuant to our standard pricing and contract terms. We do not utilize an outside sales force or provide professional services.

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 own 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 networks of technology professionals.

We extend our sales reach through our MSP customers, who provide IT management as a service and rely on our products to manage and monitor the IT environments of their end customers. Our MSP customer base enables us to reach across a fragmented end market opportunity of millions of organizations and access a broader universe of customers. We benefit from the addition of end customers served by our MSP customers, the proliferation of devices managed by those MSPs and the expansion of products used by those MSPs to manage end customers' IT infrastructures.

We have grown while maintaining high levels of operating efficiency. We derive our revenue from a combination of subscription revenue from the sale of our cloud management and MSP products and license and maintenance revenue from the sale of our on-premise network and IT operations management perpetual license products. Over time, we have significantly increased our subscription and maintenance revenue and intend to grow our revenue and cash flow by gaining new customers, increasing penetration within our existing customer base, expanding our international footprint, bringing new products to market and expanding into new markets through organic development and targeted acquisitions.

SolarWinds Corporation was incorporated in the State of Delaware in 2015 under the name Project Aurora Parent, Inc. It changed its name to SolarWinds Parent, Inc. in May 2016, and in May 2018 changed its name to SolarWinds Corporation.

Initial Public Offering

In October 2018, we completed our IPO, in which we sold and issued 25,000,000 shares of our common stock at an issue price of $15.00 per share. We raised a total of $375.0 million in gross proceeds from the offering, or approximately $353.0 million in net proceeds after deducting underwriting discounts and commissions of $17.8 million and offering-related expenses of

approximately $4.2 million . A portion of the net proceeds from the offering were used to repay the $315.0 million in borrowings outstanding under our second lien term loan. In connection with the voluntary prepayment of the second lien term loan, we paid a $14.2 million prepayment fee.

See *Note 1. Organization and Nature of Operations 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 IPO.

The SolarWinds Model

At SolarWinds, we do things differently. The focus and discipline that we bring to our business distinguish us in a highly competitive landscape.

We believe that growth and profitability are not conflicting priorities. We designed our business to allow us to grow and generate significant positive cash flow at the same time.

At the heart of everything we do as a company is the SolarWinds Model, which consists of five principles that guide our business and help explain why technology professionals choose our products:

Focus on the Technology Professional

We are committed to understanding technology professionals and the daily challenges that they face managing the complex, ever-changing demands of business-critical IT environments. We have a substantial customer base and community of technology professionals. We engage with them on a daily basis through digital marketing and online communications. These include THWACK, our online community that provides forums to registered members, tools and valuable resources; several company-sponsored blogs in which we provide perspectives and information relevant to the IT management market; and web-based events designed to train and inform participants about deeper aspects of our products. We don't have to guess about what they need, we just ask.

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 allows us to deliver products that solve well-understood IT problems simply, quickly and affordably for the entire market, from very small businesses to the largest of global enterprises, regardless of whether their IT is managed internally or through an MSP.

We design our products to be easy to access, try, buy, deploy and use. Many of our products are built on common technology platforms that enable our customers to purchase and implement our products individually, and then add additional product or products as needed. Or they can buy multiple products as integrated suites. This allows customers to buy what they need, when they need it, and grow as their needs evolve.

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

We utilize digital marketing to directly reach technology professionals of all levels of sophistication managing IT 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.

Over the past decade, we have honed our use of online tools to find, communicate with and sell to our potential customers of all levels of sophistication with environments of all levels of complexity and size. 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 trust.

Sell from the Inside

We are committed to selling from the inside. We adhere to a prescriptive process and metrics-based approach that drives predictability and consistency and has helped us add new customers.

The size and organization of our sales force enables us to reach thousands of technology professionals each day. We close the smallest and most simple transactions to our largest and most complex deals efficiently without the need for an outside sales force, product customization or professional services. Our sales team uses a prescriptive approach designed to manage these leads and quickly sell our products pursuant to our standardized pricing and contract terms. We believe our selling motion reflects how our customers prefer to do business.

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 grow their relationship with us and become our advocates within both their organizations and their networks of technology professionals. The power of our approach is evidenced by the long-term relationships we have with our customers.

Growth Strategies

We intend to extend our leadership in network management and grow our market share in adjacent areas of IT management with powerful yet easy to use software products designed to manage "all things IT" across hybrid IT environments. The following are key elements of our growth strategy:

Win New Customers Using the SolarWinds Model

The SolarWinds Model allows us to win new customers in existing markets where our products and our model give us a competitive advantage. Our efficient marketing and sales model and powerful brand recognition and trust among technology professionals have enabled us to increase our customer base. We intend to leverage our ability to efficiently attract new customers to continue to increase our overall customer base.

Increase Penetration Within Our Existing Customer Base

Many of our customers make an initial purchase to meet an immediate need, such as network or application performance monitoring in a small portion of their IT infrastructure, and then subsequently purchase additional products for other use cases or expansion across their organization. Once our customers have used our products within their IT environment, we are well positioned to help identify additional products that offer further value to those customers. We continue to refine our sales effort to better target our marketing and sales efforts and expand the sales of our products within organizations, particularly those that have multiple purchasers of our IT management products.

Increase Our International Footprint

We believe a substantial market opportunity exists to increase our international footprint across all of our product lines. In particular, our cloud management products, which are currently sold primarily in North America, have strong expansion potential. We have made significant investments in recent years to increase our sales and marketing operations internationally, and expect to continue to invest to grow our international sales and global brand awareness.

Continue to Innovate

We intend to continue focusing on innovation and bringing new products and tools to market that address problems that technology professionals are asking us to solve. We also intend to continue providing frequent feature releases to our existing 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.

Expand into New Markets Aligned with the SolarWinds Model

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 MSP markets. We intend to further expand into markets where our SolarWinds Model provides us with competitive advantages.

Pursue Targeted Acquisitions of Products and Technologies

We have successfully acquired and integrated businesses and technologies in the past that provided us with new product offerings and capabilities and helped us to establish positions in new segments and markets. We intend to continue making targeted acquisitions that complement and strengthen our product portfolio and capabilities or provide access to new markets. We evaluate acquisition opportunities to assess whether they will be successful within the SolarWinds Model. We believe our ability to effectively transition acquired companies and products to the SolarWinds Model represents a unique opportunity for our business.

Our Customers and Market

We designed the SolarWinds Model to reach all sizes of businesses. Our customers represent organizations ranging in size from very small businesses to large enterprises. Customers often initially purchase one of our products to solve a known problem and then expand their purchases over time.

As of December 31, 2018, we had over 300,000 customers. 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.

The SolarWinds Model allows us to both sell to a broad group of potential customers and close large transactions with significant customers. At the same time, we designed the SolarWinds Model to reach businesses that outsource the management of some or

all of their IT infrastructure to MSPs. We reach SMBs through MSPs and directly, including those SMBs that may purchase a single product to solve a known problem.

Organizations across industries are using technology and software to drive business success and competitive differentiation. 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 has become critical to business strategy. The job of the technology professionals who deploy and manage these environments is more challenging than ever.

Growing IT Complexity Creates Significant Challenges for Organizations

As organizations deploy and rely on a mix of on-premise, public and private cloud and hybrid IT environments, they require performance monitoring and management solutions that work across their increasingly complex environments and provide full visibility into performance.

Empowerment of the Technology Professional

The technology professionals charged with managing these infrastructures are increasingly responsible for making technology choices to help ensure performance of IT infrastructure meets the needs of the business. Additionally, the democratization of IT spend has shifted influence in software purchase decisions from the highest levels of an organization's IT department to technology professionals, who can have different perspectives from 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.

Organizations Have Choices in Allocating Resources to Manage IT

Efficiently managing IT and quickly resolving problems are paramount for organizations of all sizes. However, as IT complexity grows, organizations must determine how to allocate their resources to best manage their IT needs. Organizations can choose to manage their own IT infrastructure or buy IT management as a service through MSPs. MSPs maintain and operate an organization's IT environment and can deliver the full range of IT solutions, including network monitoring, server and desktop management, backup and recovery and IT security. For many smaller organizations that lack the time, resources and technical expertise to manage complex IT environments, MSPs can improve the efficacy of their IT strategy without significant capital investment. For larger organizations, MSPs can replace or supplement in-house capabilities.

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 solutions purpose-built to serve the needs of technology professionals.

Product Portfolio and Technology Platforms

We offer over 50 products to monitor and manage network, systems, desktop, application, storage, database and website infrastructures, whether on-premise, in the public or private cloud or in a hybrid IT infrastructure. We intend to continue to innovate and invest in areas of product development that bring new products to market and enhance the functionality, ease of use and integration of our current products. We believe this will strengthen the overall value proposition of our products in any IT environment.

Our product development is guided by principles that provide 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.

2. Our roadmaps are guided by a large community of users rather than by a select few large customers.

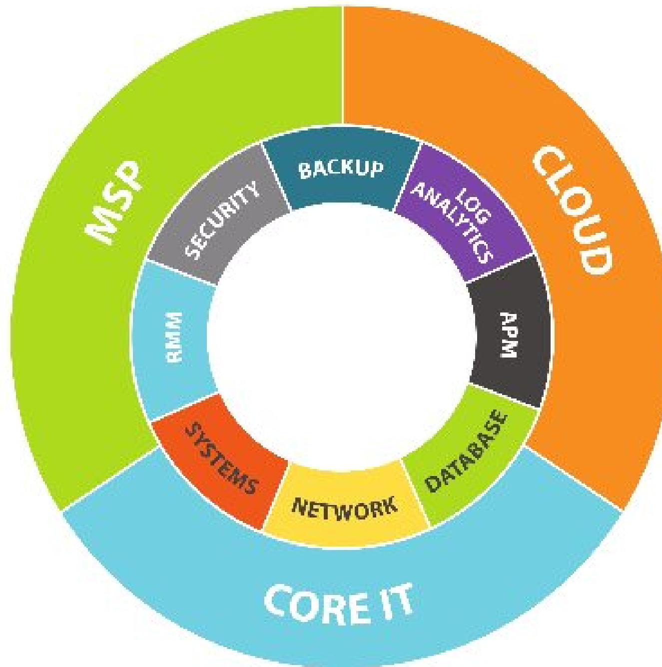
3. We develop products that are intended to sell themselves and be easy to use, powerful and immediately valuable to users.

4. We design and develop our products to integrate and complement each other while providing a consistent user experience.

We believe we have one of the broadest product portfolios of IT monitoring and management software across the industry, providing deep visibility into web, application, database, virtual resources, storage, and network performance. Our products monitor

applications and their supporting infrastructure, whether the applications are located on-premise, in the cloud, or in a hybrid environment. Our products monitor applications in the cloud via an agent, agentlessly, or by using information from cloud providers' APIs.

Our approach to IT management allows us to cross-pollinate products across markets and environments. Most recently, we integrated NetPath, a product that is part of our core IT portfolio and provides deep visibility into critical network paths, into our core MSP offering.



Core IT Products

Targeted for IT professionals, our core IT products provide hybrid IT performance management with deep visibility into application and IT infrastructure across both on-premise and cloud infrastructures. 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 system management products monitors and analyzes the performance of applications and their supporting infrastructure, including websites, 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, backup and log and event management products.

Our core IT offerings, enabled by our common technology platform, are highly scalable and can be added alongside existing products in a modular fashion. Integrating our network products and IT operations management products, which we previously referred to as systems management products, our platform combines data from multiple parts of the IT stack to provide a single, unified application-centric view and customer experience. Our platform also enables a single dashboard to view real-time application metrics regardless of whether the applications are deployed across multiple data centers or cloud vendors globally.

Our core IT products include both core licensed products and tools. Our core licensed products are typically server-based with a browser interface, have a higher average selling price than tools and are the focus of our strategies to drive revenue growth. Our tools can be server-or laptop-based, typically have a lower average selling price than our core licensed products and are primarily used by us to meet a critical need of our target customer base, but are not the focus of our revenue growth strategies.

Cloud Management Products

Targeted for DevOps and ITOps professionals, our cloud management products provide cloud-based monitoring of the full IT stack whether deployed in the cloud or on-premise. Our cloud management products enable visibility into log data, cloud infrastructure metrics, applications, tracing and web performance management. In addition to our individual products that address each of these areas, we also offer AppOptics, which integrates application performance, server infrastructure monitoring and custom metrics into one unified, cloud-based solution.

MSP Products

Our portfolio targeted for MSPs delivers broad, scalable IT service management solutions to enable MSPs to deliver outsourced IT services for their SMB end-customers and more efficiently manage their own businesses. Our core remote monitoring and management software, which remotely monitors desktops, laptops, servers and mobile devices across operating systems and platforms, integrates with a broad offering of MSP-focused products on a common platform including patch management, backup, anti-virus, web protection, risk assessment, help desk/service ticketing and application management. We also offer an email protection and archiving platform on a standalone basis that protects businesses from phishing, malware and other email-borne threats.

Marketing and Sales

We market and sell our products directly to technology professionals with a low-touch, high-velocity digital marketing and "selling from the inside" motion that we believe is unique and hard to replicate in the software industry. Our marketing and sales process allows 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, DevOps and MSP professionals within organizations versus the organizations themselves. We believe this approach provides us with a significant advantage in today's environment in which purchasing influence and power is shifting from traditional procurement to the technology professionals themselves.

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, free IT management tools, display advertising, affiliate marketing, social media, e-book distribution, video content, blogging and webinars.

We also engage using our online community, THWACK. Within THWACK, we provide forums, solutions, tools, webinars, content and other valuable resources relevant to the IT management market. This community is designed to train and inform technology professionals about our products, keep us connected to them and provide network effects to amplify word-of-mouth marketing for our products.

Sales

We refer to our selling motion as "selling from the inside." This approach is rooted in having our sales organization physically located in our offices, selling exclusively 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 do not employ any outside sales personnel.

Our sales organization is divided into our dedicated sales team and our retention and maintenance renewal team. Our dedicated sales team focuses exclusively on sales of new products to new and existing customers. 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.

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

We also sell our software through distributors and resellers to supplement 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 particular reseller. We contract directly with end customers when

we sell our products through channel partners. We have a number of resellers who are proactively creating demand for our products and bring new opportunities and customers to us. In addition to selling to SMBs directly, we also deliver our technology to SMBs through our MSP customers, who use our products to provide outsourced IT management services to these SMBs.

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 and complement one another.

We have designed our software development process to be responsive to customer needs, cost efficient and agile. In our 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, efficiently, and cost-effectively. Our low-cost 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 to each role, at the most efficient cost. We utilize small scrum teams, each dedicated to specific product modules that follow a standard set of practices to build and test their code continuously. We share our development values across our offices and aim to assign meaningful design and development work to our international locations.

We believe that we have developed a differentiated process that allows us to release new software rapidly, cost effectively 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, devices, operating systems and deployment environments result in evolving customer requirements. Our competitors and potential competitors include:

- large network management and IT vendors such as Netscout, MicroFocus, CA Technologies, IBM and BMC Software; and
- smaller companies in the cloud and application monitoring and the MSP IT tools markets, where we do not believe that a single or small group of companies has achieved market leadership.

We believe the principal competitive factors in our market are:

- brand awareness and reputation among technology professionals, including IT professionals, DevOps professionals and MSPs;
- product capabilities, including scalability, performance 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-premise, in the cloud or in a hybrid environment;
- 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, 2018 , we owned approximately 30 issued U.S. patents and 160 issued foreign patents, with expiration dates ranging from October 2026 to November 2036. We have also filed approximately 65 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 in order 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 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.

Employees

As of December 31, 2018 , we had 2,738 employees, of which 1,030 were employed in the United States and 1,708 were employed outside of the United States. We consider our current relationship with our employees to be good. We are not party to any collective bargaining agreement.

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

Risks Related to Our Business and Industry

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

We believe our quarterly revenue and operating results may vary significantly in the future. 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;
- decline in maintenance or subscription renewals;
- 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 amount and timing of operating expenses and capital expenditures related to the expansion of our operations and infrastructure and customer acquisition;
- 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;
- fluctuations in foreign currency exchange rates that may negatively impact our reported results of operations;
- 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;
- the timing and success of new product, 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 policies or those of our competitors;
- the impact of new accounting pronouncements;
- 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;
- 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 security breaches, technical difficulties or interruptions to our products; and
- changes in tax rates in jurisdictions in which we operate.

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, it could adversely affect our revenue growth and operating results.

Our digital marketing program is designed to efficiently and cost-effectively drive a high volume of website traffic and deliver high quality leads, which are generally trials of our products, to our sales teams. We drive website traffic and capture leads through various digital marketing initiatives, including search engine optimization, or SEO, targeted email campaigns, localized websites, social media, e-book distribution, video content, blogging and webinars. 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 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 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 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 IT 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. Several 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 recently enacted General Data Protection Regulation. These new laws and regulations may impose significant monetary penalties for violations and complex and often burdensome requirements in connection with sending commercial email 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 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 low-touch, high-velocity sales model. 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. 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.

We offer and sell our products to two main groups of customers: technology professionals, who use our cloud and on-premises products to manage their organization’s own IT infrastructure, and managed service providers, or MSPs, who use our products to manage their end clients’ IT infrastructure. In addition to the growth in our core IT offerings since our inception, since 2013, we have also devoted significant resources to expanding our MSP offerings, including through our acquisition of LOGICnow in 2016. If we fail to continue to add MSP customers, our business and operating results may be harmed.

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. Additionally, customers could cancel their subscription agreements prior to the expiration of the subscription period, which could result in us recognizing less subscription revenue than expected over the term of the agreement.

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, including their level of satisfaction with our products,

the prices of our products, the prices of products and services offered by our competitors or reductions in our customers' spending levels. 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.

We have experienced substantial growth in recent years, and if we fail to manage our growth 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 has rapidly grown, which has resulted in large increases in our number of employees, expansion of our infrastructure, new internal systems and other significant changes and additional complexities. We increased our total number of employees to 2,738 as of December 31, 2018 from 2,422 as of December 31, 2017 . While we intend to further expand our overall business, customer base, and number of employees, our historical growth rate is not necessarily indicative of the growth that we may achieve in the future. The growth 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 growth, 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 this growth effectively. If we fail to anticipate and manage our growth 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.

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 is susceptible to risks associated with international operations.

We have international operations in the Republic of Ireland, the United Kingdom, the Czech Republic, Poland, Belarus, Romania, Germany, Portugal, the Netherlands, Sweden, Canada, Australia, Singapore and the Philippines. We also 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. In particular, 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. In addition, conducting international operations subjects us to risks that we have not generally faced in the United States. These include, but are not limited to:

- fluctuations in currency exchange rates (which we hedge only to a limited extent at this time);
- the complexity of, or changes in, foreign regulatory requirements;
- 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;
- dependence on resellers and distributors to increase customer acquisition or drive localization efforts;
- 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 abroad;
- terrorist attacks and security concerns in general;
- reduced or varied protection for intellectual property rights in some countries; and
- the risk of U.S. regulation of foreign operations.

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 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. If we experience problems with our workforce or facilities internationally, we may not be able to develop new products or enhance existing products in an alternate manner that may be equally or less efficient and cost-effective.

We are monitoring developments related to the United Kingdom’s 2016 referendum in which United Kingdom voters approved an exit from the European Union commonly referred to as “Brexit.” The potential effects of Brexit on our business will depend upon any agreements the United Kingdom makes to retain access to European Union markets either during a transitional period or more permanently and negotiations are ongoing. Since we have operations in the UK and Europe, Brexit could potentially have corporate structural consequences, adversely change tax benefits or liabilities and disrupt some of the markets and jurisdictions in which we operate. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which European Union laws to replace or replicate.

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 industry. Competition in our market is based primarily on brand awareness and reputation; product capabilities, including scalability, performance 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-premise, 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 requirements.

We face competition from both large network management and IT vendors offering enterprise-wide software frameworks and services and smaller companies in the cloud and application monitoring and the MSP IT tools markets. We also compete with network equipment vendors and IT operations management product providers, as well as infrastructure providers and their native applications, whose products and services also address network and IT management requirements. Our principal competitors vary depending on the product we offer and include large network management and IT vendors such as NetScout Systems, Inc., Micro Focus International plc, CA, Inc., International Business Machines Corporation and BMC Software, Inc., and smaller companies in the cloud and application monitoring and the MSP IT tools markets, where we do not believe that a single or small group of companies has achieved market leadership.

Some of our competitors have made acquisitions or entered into strategic relationships with one another to offer more comprehensive or 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.

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

From time to time, we may provide information regarding our financial outlook in our quarterly earnings releases, quarterly earnings conference calls, or otherwise, that represents our management’s estimates as of the date of release. This information regarding our financial outlook, which includes forward-looking statements, will be based on projections, including those related to certain of the factors listed above, 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 intend to state possible outcomes as high and low ranges, which will be 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 may in the future 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 would be 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 connection 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.

If we sustain system failures, cyberattacks against our systems or against our products, or other data security incidents or breaches, we could suffer a loss of revenue and increased costs, exposure to significant liability, reputational harm and other serious negative consequences.

We are heavily dependent on our technology infrastructure to sell our products and operate our business, and our customers rely on our technology to help manage their own IT infrastructure. Our systems and those of our third-party service providers are vulnerable to damage or interruption from natural disasters, fire, power loss, telecommunication failures, traditional computer "hackers," malicious code (such as viruses and worms), employee theft or misuse, and denial-of-service attacks, as well as sophisticated nation-state and nation-state-supported actors (including advanced persistent threat intrusions). The risk of a security breach or disruption, particularly through cyberattacks or cyber intrusion, including by computer hacks, foreign governments, and cyber terrorists, has generally increased the number, intensity and sophistication of attempted attacks, and intrusions from around the world have increased. In addition, sophisticated hardware and operating system software and applications that we procure from third parties may contain defects in design or manufacture, including "bugs" and other problems that could unexpectedly interfere with the operation of our systems.

Because the techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not identified until they are launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. We may also experience security breaches that may remain undetected for an extended period and, therefore, have a greater impact on the products we offer, the proprietary data contained therein, and ultimately on our business.

The foregoing security problems could result in, among other consequences, damage to our own systems or our customers' IT infrastructure or the loss or theft of our customers' proprietary or other sensitive information. The costs to us to eliminate or address the foregoing security problems and security vulnerabilities before or after a cyber incident could be significant. Our remediation efforts may not be successful and could result in interruptions, delays or cessation of service and loss of existing or potential customers that may impede sales of our products or other critical functions. We could lose existing or potential customers in connection with any actual or perceived security vulnerabilities in our websites or our products.

During the purchasing process and in connection with evaluations of our software, either we or third-party providers collect and use customer information, including personally identifiable information, such as credit card numbers, email addresses, phone numbers and IP addresses. We have legal and contractual obligations to protect the confidentiality and appropriate use of customer data. Despite our security measures, unauthorized access to, or security breaches of, our software or systems could result in the loss, compromise or corruption of data, loss of business, severe reputational damage adversely affecting customer or investor confidence, regulatory investigations and orders, litigation, indemnity obligations, damages for contract breach, penalties for violation of applicable laws or regulations, significant costs for remediation and other liabilities. We have incurred and expect to incur significant expenses to prevent security breaches, including deploying additional personnel and protection technologies, training employees, and engaging third-party experts and consultants. Our errors and omissions insurance coverage covering certain security and privacy damages and claim expenses may not be sufficient to compensate for all liabilities we incur.

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

In order to expand our business, we have made several acquisitions and expect to continue making similar acquisitions and possibly larger acquisitions as part of our growth strategy. The success of our future growth strategy will depend on our ability to identify, negotiate, complete and integrate acquisitions and, if necessary, to obtain satisfactory debt or equity financing to fund those acquisitions. 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 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 agreements 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.

Our operating margins and cash flows from operations could fluctuate as we make further expenditures to expand our operations in order to support additional growth in our business.

We have made significant investments in our operations to support additional growth, such as hiring substantial numbers of new personnel, investing in new facilities, acquiring other companies or their assets and establishing and broadening our international operations in order to expand our business. We have made substantial investments in recent years to increase our sales and marketing operations in the EMEA and APAC regions and expect to continue to invest to grow our international sales and global brand awareness. We have made multiple acquisitions in recent years and expect these acquisitions will continue to increase our operating expenses in future periods. These investments may not yield increased revenue, and even if they do, the increased revenue may not offset the amount of the investments. We also expect to 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.

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, support and general and administrative functions. The loss of one or more of our management team could have a material adverse effect on our business.

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. As we move into new geographic areas, we will need to attract, recruit and retain qualified personnel in those locations. In addition, acquisitions could cause us to lose key personnel of the acquired businesses. The market for qualified personnel is competitive and we may not succeed in recruiting additional 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 as we feel that our business model and approach to marketing and selling our products are unique. 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. Our effort to retain and develop personnel may also result in significant additional expenses, including stock-based compensation expenses, which could adversely affect our profitability. 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. We have made significant changes, and may make additional changes in the future, to our senior management team and other key

personnel. 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. Failure to retain or attract key personnel could have a material adverse effect on our business.

Our success depends on our ability to maintain a product portfolio that responds to the needs of technology professionals and the evolving IT management market.

Our product portfolio has grown from on-premise network management products to broad-based on-premise systems monitoring and management and products for the growing but still emerging cloud and MSP markets. We offer over 50 products designed to solve the day-to-day problems encountered by technology professionals managing complex IT infrastructure, spanning on-premise, cloud and hybrid IT environments. 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 on a day-to-day basis in an evolving IT management market. 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. New products and enhancements 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. 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 upon identifying, developing and maintaining strategic relationships with our existing and potential channel partners that can drive substantial revenue and provide additional valued-added services to our customers. Our agreements with our existing channel partners are non-exclusive, meaning our channel 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. If we fail to identify 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, our reputation and ability to grow our business may also be harmed.

We depend on the U.S. federal government in certain calendar quarters for a meaningful portion of our on-premise license sales, including maintenance renewals associated with such products, and orders from the U.S. federal government are unpredictable. The delay or loss of these sales may harm our operating results.

A portion of our on-premise license sales, including maintenance renewals associated with such products, are to a number of different departments of the U.S. federal government. In certain calendar quarters, particularly the third calendar quarter, this portion may be meaningful. Any factors that cause a decline in government expenditures generally or government IT expenditures in particular could cause our revenue to grow less rapidly or even to decline. These factors include, but are not limited to, constraints on the budgetary process, including changes in the policies and priorities of the U.S. federal government, deficit-reduction legislation, and any shutdown of the U.S. federal government. Furthermore, sales orders from the U.S. federal government tend to be dependent on many factors and therefore unpredictable in timing. 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.

We are subject to various global data privacy and security regulations, which could 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 may result 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 breach notification laws. If there is a breach of our computer systems and we know or suspect that unencrypted personal customer information has been stolen, 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 stolen, which could 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 and other jurisdictions, and we cannot yet determine the impact such future laws, regulations and standards will have on our business or the businesses of our customers, including, but not limited to, the European Union's recently enacted General Data Protection Regulation, which came into force in May 2018 and created a range of new compliance obligations, and significantly increased financial penalties for noncompliance.

Failure to comply with laws concerning privacy, data protection and information security could result in enforcement action against us, including fines, 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 a security incident. 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 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 the event of a security breach could 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.

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 and useful products at competitive prices. We intend to increase our expenditures on brand promotion. 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 to give us feedback on our products and to provide 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. Additionally, if our MSP customers do not use or ineffectively use our products to serve their end clients, our reputation and ability to grow our business may be harmed.

Adverse economic conditions may negatively affect our business.

Our business depends on the overall demand for information technology and on the economic health of our current and prospective customers. Any significant weakening of the economy in the United States, EMEA, APAC and of the global economy, more limited availability of credit, a reduction in business confidence and activity, decreased government spending, economic uncertainty, and other difficulties may affect one or more of the sectors or countries in which we sell our products. Global economic and political uncertainty may 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. Any of these events could have an adverse effect on our business, operating results and financial position.

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. 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 and certain aspects of our financial reporting processes. As we expand our operations,

we expect to utilize additional systems and service providers that may also be essential to managing our business. 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, or experience delays, disruptions or quality-control problems in their operations, or we have to change or add additional systems and services, our ability to manage our business and produce timely and accurate financial statements would suffer.

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

Our continued growth 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. 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, especially during peak usage times and as 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 and 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.

We provide certain of our cloud management and MSP products through third-party data center hosting facilities located in the United States and other countries. While we control and have access to our servers and all of the components of our network that are located in such third-party data centers, we do not control the operation of these facilities. Following expiration of the current agreement terms, the owners of the data center facilities 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.

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, hardware and software platforms, and we need to continuously modify and enhance our products to adapt to changes in hardware, software, 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.

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, 2018 , we had approximately 30 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 future litigation could adversely affect our results of operations, profitability and cash flows.

From time to time, we have been and may be involved in various legal proceedings and claims arising in our ordinary course of business. At this time, 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.

In particular, 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, 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 errors or defects in or failures of the third-party software could result in 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.

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.

We entered into credit agreements in 2016 and 2018. Although we used a portion of the proceeds from our initial public offering to repay $315.0 in borrowings outstanding, plus accrued interest, under our second lien term loan, as of December 31, 2018 , our total indebtedness was $2.0 billion and we had $125.0 million available for additional borrowing under our credit facilities. Our net interest expense during the years ended December 31, 2018 , 2017 and 2016 (on a combined basis) was approximately $142.0 million , $169.8 million and $170.4 million , respectively.

Our substantial indebtedness incurred under the credit agreements 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 agreements are subject to variable rates of interest; and
- limiting our ability to 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 agreements governing our credit facilities contain 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 agreements also contain 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 agreements governing our credit facilities may be affected by economic, financial and industry conditions beyond our control. The restrictions in the credit agreements 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 any of our credit agreements are terminated, any additional debt that we incur in the future could subject us to similar or additional covenants.

The credit agreements include 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 agreements or an acceleration of the obligations under the credit agreements. 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. 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.

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, beginning with our second annual report following our initial public offering, provide a management report on internal control over financial reporting. However, while we remain an emerging growth company, we

will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm.

Any failure to develop or 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 when required in the future, 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 other changes in tax laws or regulations.

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. 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, 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.

On December 22, 2017, the Tax Cuts and Jobs Act, or the Tax Act, was enacted, which significantly revises the Internal Revenue Code of 1986, as amended, or the Code. The Tax Act, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for net interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for NOLs to 80% of current year taxable income and elimination of NOL carrybacks, in each case, for losses arising in taxable years beginning after December 31, 2017 (though any such NOLs may be carried forward indefinitely), one-time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits. The final impact of the one-time taxation of offshore earnings has been completed during 2018 and discussed further in *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.

The U.S. Department of Treasury has broad authority to issue regulations and interpretative guidance that may significantly impact how we will apply the law and impact our results of operations in the period issued. As additional regulatory guidance is issued by the applicable taxing authorities, and as accounting treatment is clarified, the final analysis may be different from our current amounts, which could materially affect our tax obligations and effective tax rate. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse. We urge our stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

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.

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 and entities. 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 denial or curtailment 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 or entities 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.

Risks Related to Ownership of Our Common Stock

The requirements of being a public company, including compliance with the reporting requirements of the Exchange Act, the requirements of the Sarbanes-Oxley Act and the requirements of the NYSE, may strain our resources, increase our costs and distract management, and we may be unable to comply with these requirements in a timely or cost-effective manner.

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, with which we were not required to comply as a private company. As a newly public company, 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 newly 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, establish new 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 may be 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 as compared to when we were a private company.

Furthermore, while we generally must comply with Section 404 of the Sarbanes-Oxley Act for the year ending December 31, 2018, we are not required to have our independent registered public accounting firm attest to the effectiveness of our internal controls until our first annual report subsequent to our ceasing to be an emerging growth company. Accordingly, we may not be required to have our independent registered public accounting firm attest to the effectiveness of our internal controls until as late as our annual report for the year ending December 31, 2023. Once it is required to do so, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed, operated or reviewed. Compliance with these requirements may strain our resources, increase our costs and distract management, and we may be unable to comply with these requirements in a timely or cost-effective manner.

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

Our initial public offering occurred in October 2018. Therefore, there has only been a public market for our common stock for a short period of time. Although our common stock is listed on the NYSE, an active trading market for our common stock may not develop or, if developed, be sustained. Technology stocks have historically experienced high levels of volatility. The trading price of our common stock may fluctuate significantly. Since shares of our common stock were sold in our initial public offering in October 2018 at a price of $15.00 per share, our stock price has fluctuated significantly. Factors that could cause fluctuations in the trading price of our common stock include the following:

- announcements of new products or technologies, commercial relationships, 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;
- departures of key personnel;
- price and volume fluctuations in the overall stock market from time to time;
- 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;
- 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 economic conditions and trends;
- 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. This could have an adverse effect on our business, operating results and financial condition.

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, 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, 2018 , we had 309,927,849 shares of common stock outstanding. Of these shares, the 25,000,000 shares of common stock sold in our initial public offering are freely tradeable. In addition, approximately 281 million shares of our common stock will be eligible for sale in the public market on April 16, 2019 following the expiration of the 180-day lock-up period in connection with our initial public offering, subject to volume, manner of sale and other limitations of Rule 144, as applicable, and the terms of our insider trading policy.

In addition, as of December 31, 2018 , there were 3,129,900 shares of common stock subject to outstanding options, 6,277,466 shares of common stock to be issued upon the vesting of outstanding restricted stock units and 970,922 shares of common stock to be issued upon the vesting of outstanding performance stock units. We have registered all of the shares of common stock issuable upon the exercise of outstanding options, upon the vesting of outstanding restricted stock units and performance stock units and upon exercise of settlement of any options or other equity incentives we may grant in the future, for public resale under the Securities Act. Accordingly, these shares may be freely sold in the public market upon issuance as permitted by any applicable vesting requirements, subject to the lock-up agreements described above and compliance with applicable securities laws. Furthermore, holders of 275,327,427 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.

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

We may issue additional capital stock in the future that 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 do not intend to pay dividends on our common stock.

We do not intend to pay dividends on our common stock. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future.

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;
- after the Lead Sponsors cease to beneficially own, in the aggregate, at least 40% of the outstanding shares of our common stock, our stockholders may not take action by written consent but may take action only at annual or special meetings 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 requirement for the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our 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 88.8% of our common stock as of December 31, 2018 . 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 chairman of each of the committees, other than

the audit committee, is expected to be a director serving on such committee who is designated by the Sponsors. However, as soon as we are no longer a "controlled company" under the NYSE corporate governance standards, our committee membership will comply with all applicable requirements of those standards and a majority of our board of directors will be "independent directors," as defined under the rules of the NYSE, subject to any phase-in provisions.

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 directors have relationships with the Lead Sponsors, which may cause conflicts of interest with respect to our business.

Three of our ten directors are affiliated with Silver Lake and three are affiliated with Thoma Bravo. These directors have fiduciary duties to us and, in addition, have duties to the respective Sponsor and their affiliated funds, respectively. As a result, these directors may face real or apparent conflicts of interest with respect to matters affecting both us and the Sponsors, whose interests may be adverse to ours in some circumstances.

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 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.

For as long as we are an emerging growth company, we will not be required to comply with certain requirements that apply to other public companies .

We are an emerging growth company, as defined in the JOBS Act. For as long as we are an emerging growth company, which may be up to five full fiscal years, we, unlike other public companies, will not be required to, among other things: (i) provide an auditor's attestation report on management's assessment of the effectiveness of our system of internal control over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act; (ii) comply with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation or a supplement to the auditor's report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer; (iii) provide certain disclosures regarding executive compensation required of larger public companies; or (iv) hold nonbinding advisory votes on executive compensation and any golden-parachute payments not previously approved. In addition, the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for adopting new or revised financial accounting standards. We have elected to take advantage of the longer phase-in periods for the adoption of new or revised financial accounting standards permitted under the JOBS Act until we are no longer an emerging growth company. If we were to subsequently elect instead to comply with these public company effective dates, such election would be irrevocable pursuant to the JOBS Act.

We will remain an emerging growth company for up to five years, although we will lose that status sooner if we have more than $1.07 billion of revenue in a fiscal year, have more than $700.0 million in market value of our common stock held by non-affiliates, or issue more than $1.0 billion of non-convertible debt over a three-year period.

For so long as we rely on any of the exemptions available to emerging growth companies, you will receive less information about our executive compensation and internal control over financial reporting than issuers that are not emerging growth companies. We cannot predict whether investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock to be less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

When we lose our emerging growth company status or if we elect to no longer take advantage of the longer phase-in periods for the adoption of new or revised financial accounting standards permitted under the JOBS Act, the emerging growth company exemptions will cease to apply and we expect we will incur additional expenses and devote increased management effort toward ensuring compliance with the non-emerging growth company requirements. We cannot predict or estimate the amount of these expenses, which may be substantial.

We will be a controlled company within the meaning of the NYSE rules and, as a result, will qualify for and intend to 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. We have elected to take advantage of these exemptions. 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 2. PROPERTIES

We lease our offices and do not own any real estate. Our corporate headquarters is located in Austin, Texas, and 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; Brno, Czech Republic; Durham, North Carolina; Manila, Philippines; Ottawa, Canada; Dundee, United Kingdom; Krakow, Poland; Lehi, Utah and Singapore.

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

From time to time, we have been and may be involved in various legal proceedings and claims arising in our ordinary course of business. At this time, 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 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 has been listed on the New York Stock Exchange ("NYSE") under the symbol "SWI" since October 19, 2018. Prior to that date, there was no public trading market for our common stock. Our initial public offering ("IPO") was priced at $15.00 per share on October 18, 2018.

On February 21, 2019, the last reported sales price of our common stock on the NYSE was $18.49 per share and, as of February 15, 2019 there were 279 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.

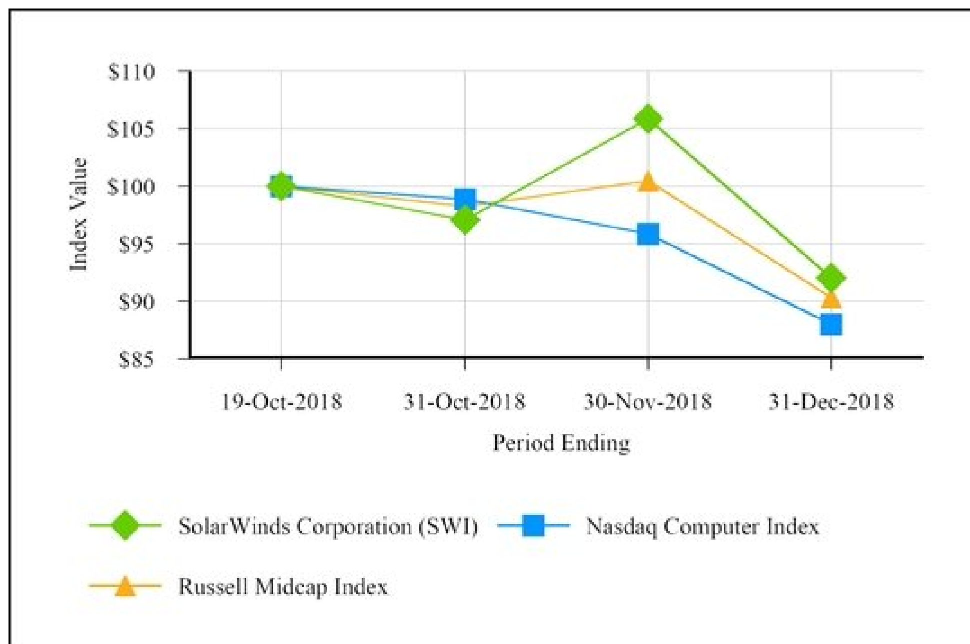
Dividend Policy

We have never 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. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not expect to pay any dividends on our common stock in the foreseeable future. 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, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors may deem relevant. In addition, our credit facilities place restrictions on our ability to pay cash dividends.

Performance Graph

The graph set forth below compares the cumulative total stockholder return on our common stock for the period between October 19, 2018 (the date of our IPO) and December 31, 2018, with the cumulative total return of (i) the Russell Midcap Index and (ii) the Nasdaq Computer Index, or the Industry Index. This graph assumes the investment of $100 at market close on October 19, 2018 in our common stock, the Russell Midcap Index and the Industry Index, and assumes the reinvestment of dividends, if any. The Industry Index consists of NASDAQ-listed computer hardware and software companies that provide products or services. Note that historic stock price performance is not necessarily indicative of future stock price performance.

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.



Unregistered Sales of Equity Securities

In the three years preceding the filing of this annual report, the Company has sold and issued the following unregistered securities:

Class A Common Stock and Class B Common Stock Issuances

In May 2016, we sold an aggregate of 188,099.99 shares of our Class A common stock at a purchase price of $1,000 per share and an aggregate of 7,021,691.15 shares of our Class B common stock at a purchase price of $0.2706 per share, for an aggregate purchase price of approximately $190 million.

In multiple closings in August 2016 through October 2017, we sold shares of Class A common stock and Class B common stock to certain of our employees through our co-investment program. In multiple closings in August through December 2016, we sold an aggregate of 8,965 shares of our Class A common stock at a purchase price of $1,000 per share and an aggregate of 334,643 shares of our Class B common stock at a purchase price of $0.2706 per share, for an aggregate purchase price of approximately $9.06 million. In May 2017, we sold an aggregate of 29.7 shares of our Class A common stock at a purchase price of $1,000 per share and an aggregate of 536 shares of our Class B common stock at a purchase price of $0.56 per share, for an aggregate purchase price of approximately $30,000. In October 2017, we sold an aggregate of 45 shares of our Class A common stock at a purchase price of $1,000 per share and an aggregate of 608 shares of our Class B common stock at a purchase price of $0.74 per share, for an aggregate purchase price of approximately $45,000.

Upon the closing of our IPO, all shares of Class A common stock that were outstanding immediately prior to the closing of the offering converted into shares of common stock in accordance with the terms of our certificate of incorporation, as amended. In addition, we converted the accrued and unpaid dividends on the Class A common stock into shares of common stock equal to the result of the accrued and unpaid dividends on each share of Class A common stock divided by the conversion price of $19.00 per share. See *Note 10. Redeemable Convertible Class A Common Stock* and *Note 11. Stockholders' Equity (Deficit) and Stock-Based Compensation* 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. Upon the closing of our IPO, our Class B common stock was reclassified as common stock.

Stock Option and Restricted Stock Issuances

We have granted to our employees, consultants and other service providers options to purchase an aggregate of 3,927,600 shares of our common stock under our SolarWinds Corporation Equity Plan, or 2016 Plan, at exercise prices ranging from $0.2706 to $10.08 per share.

From April 2017 to October 2018, we issued an aggregate of 44,350 shares of common stock to employees, consultants and directors upon exercise of stock options under the 2016 Plan, for an aggregate consideration of approximately $15,000.

From August 2016 to April 2018, we issued an aggregate of 8,663,954 shares of restricted common stock to employees, consultants and directors pursuant to restricted stock awards under our 2016 Plan at purchase prices ranging from $0.2706 to $2.10 per share, for an aggregate consideration of approximately $4.0 million.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. We believe the offers, sales and issuances of the above securities were exempt from registration under the Securities Act by virtue of Section 4(a)(2) of the Securities Act (or Regulation D or Regulation S promulgated thereunder) because the issuance of securities to the recipients did not involve a public offering, or in reliance on Rule 701 because the transactions were pursuant to compensatory benefit plans or contracts relating to compensation as provided under such rule. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Use of Proceeds from Initial Public Offering of Common Stock

On October 18, 2018, the Registration Statement on Form S-1 (File No. 333-227479) (the "Registration Statement") relating to our initial public offering was declared effective by the SEC. Pursuant to the Registration Statement, we registered an aggregate of 25,000,000 shares of our common stock, all of which were sold by us at a price to the public of $15.00 per share. Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC acted as the representatives of the underwriters in our initial public offering. We received approximately $353.0 million in net proceeds after deducting underwriting discounts and commissions of $17.8 million and offering-related expenses of approximately $4.2 million . No payments of the net proceeds were made to our directors or officers or their associates, holders of 10% or more of any class of our equity securities or any affiliates.

We used a portion of the net proceeds from the offering to repay $315.0 million in borrowings outstanding and $2.3 million of accrued interest under our second lien term loan and a related voluntary prepayment fee of approximately $14.2 million concurrently with the closing of our initial public offering in October 2018. As of December 31, 2018, all of the remaining net proceeds had been used to make monthly interest payments under our first lien credit agreement.

Issuer Purchases of Equity Securities

Period	Number of Shares Purchased (1)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of a Publicly Announced Plan or Program	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plan or Program (in thousands)
October 1-31, 2018	3,000	$ 0.27	—	$ —
November 1-30, 2018	—	—	—	—
December 1-31, 2018	18,800	0.49	—	—
Total	21,800		—	

(1) All repurchases relate to employee held restricted stock that is subject to vesting. Unvested shares are subject to a right of repurchase by us in the event the employee stockholder ceases to be employed or engaged (as applicable) by us prior to vesting. All shares in the above table were shares repurchased as a result of us exercising this right and not pursuant to a publicly announced plan or program.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with the consolidated financial statements and related notes and " *Management's Discussion and Analysis of Financial Condition and Results of Operations* " and other financial information included elsewhere in this Annual Report on Form 10-K. The following selected consolidated financial data is not intended to replace, and is qualified in its entirety by, the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

On February 5, 2016, we were acquired by the Sponsors in a take private transaction, or the Take Private. As a result of the Take Private, we applied purchase accounting on the date of the Take Private. We refer to the Company as Predecessor in the periods before the Take Private and Successor in the subsequent periods.

The selected consolidated statements of operations presented below from January 1, 2016 to February 4, 2016 relate to the Predecessor. The selected consolidated statements of operations presented below for the periods from February 5, 2016 to December 31, 2018 and the consolidated balance sheet data as of December 31, 2018, 2017 and 2016, relate to the Successor. We have derived the following consolidated statement of operations and consolidated balance sheet data from audited consolidated financial statements that are included in this Annual Report on Form 10-K.

Although the period from January 1, 2016 to February 4, 2016 relates to the Predecessor and the period from February 5, 2016 to December 31, 2016 relates to the Successor, to assist with the period-to-period comparison we have combined these periods as a sum of the amounts without any other adjustments and refer to the combined period as the combined year ended December 31, 2016. This combination does not comply with GAAP or with the rules for pro forma presentation. Our historical results are not necessarily indicative of the results to be expected in any future period.

Consolidated Statement of Operations Data:

	Successor		Combined [1]	Successor [1]	Predecessor
	Year Ended December 31,		(Unaudited) Year Ended December 31,	Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016	2016
	(in thousands, except per share data)				
Revenue:					
Subscription	$ 265,591	$ 213,754	$ 133,511	$ 126,960	$ 6,551
Maintenance	402,938	357,630	174,734	145,234	29,500
Total recurring revenue	668,529	571,384	308,245	272,194	36,051
License	164,560	156,633	161,176	149,900	11,276
Total revenue	833,089	728,017	469,421	422,094	47,327
Cost of revenue:					
Cost of recurring revenue	70,744	60,698	55,789	46,238	9,551
Amortization of acquired technologies	175,991	171,033	149,703	147,517	2,186
Total cost of revenue	246,735	231,731	205,492	193,755	11,737
Gross profit	586,354	496,286	263,929	228,339	35,590
Operating expenses:					
Sales and marketing	227,468	205,631	212,419	165,355	47,064
Research and development	96,272	86,618	97,989	65,806	32,183
General and administrative	80,641	67,303	150,647	71,011	79,636
Amortization of acquired intangibles	66,788	67,080	59,470	58,553	917
Total operating expenses	471,169	426,632	520,525	360,725	159,800
Operating income (loss)	115,185	69,654	(256,596)	(132,386)	(124,210)
Other income (expense):					
Interest expense, net	(142,008)	(169,786)	(170,373)	(169,900)	(473)
Other income (expense), net	(94,887)	38,664	(57,243)	(56,959)	(284)
Total other income (expense)	(236,895)	(131,122)	(227,616)	(226,859)	(757)
Loss before income taxes	(121,710)	(61,468)	(484,212)	(359,245)	(124,967)
Income tax expense (benefit)	(19,644)	22,398	(149,807)	(96,651)	(53,156)
Net loss	$ (102,066)	$ (83,866)	$ (334,405)	$ (262,594)	$ (71,811)
Net income (loss) available to common stockholders	$ 364,635	$ (351,873)	$ (552,309)	$ (480,498)	$ (71,811)
Net income (loss) available to common stockholders per share:					
Basic earnings (loss) per share	$ 2.60	$ (3.50)		$ (4.98)	$ (1.00)
Diluted earnings (loss) per share	$ 2.56	$ (3.50)		$ (4.98)	$ (1.00)
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	140,301	100,433		96,465	71,989
Shares used in computation of diluted earnings (loss) per share	142,541	100,433		96,465	71,989

Consolidated Balance Sheet Data:

	As of December 31,		
	2018	2017	2016
		(in thousands)	
Cash and cash equivalents	$ 382,620	$ 277,716	$ 101,643
Working capital, excluding deferred revenue	402,639	302,012	158,637
Total assets	5,194,649	5,327,064	5,202,689
Deferred revenue, current and non-current portion (2)	296,132	261,791	217,722
Long-term debt, net of current portion	1,904,072	2,245,622	2,242,892
Total liabilities	2,578,549	2,909,938	2,842,828
Redeemable convertible Class A common stock (3)	—	3,146,887	2,879,504
Total stockholders' equity (deficit) (3)	2,616,100	(729,761)	(519,643)

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(1) The operating results of LOGICnow are included in our consolidated financial statements from the acquisition date of May 27, 2016 to December 31, 2016.

(2) At December 31, 2017 and 2016, deferred revenue reflects a write-down of $3.0 million and $14.8 million, respectively, associated with purchase accounting adjustments. These cumulative purchase price adjustments did not have an impact on the December 31, 2018 deferred revenue balances.

(3) At the completion of our IPO in October 2018, we converted each outstanding share of our Class A common stock into 140,053,370 shares of common stock equal to the result of the liquidation value of such share of Class A common stock, divided by $19.00 per share. At the time of the conversion of the Class A common stock, we also converted $717.4 million of accrued and unpaid dividends on the Class A common stock into 37,758,109 shares of common stock equal to the result of the accrued and unpaid dividends on each share of Class A common stock, divided by $19.00 per share. See *Note 10. Redeemable Convertible Class A Common Stock* and *Note 11. Stockholders' Equity (Deficit) and Stock-Based Compensation* 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 the conversion of the Class A common stock.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the 'Selected Consolidated Financial Data' and 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.

On February 5, 2016, we were acquired by affiliates of Silver Lake and Thoma Bravo in a take private transaction, or the Take Private. We applied purchase accounting on the date of the Take Private. We refer to the Company as Predecessor in the periods before the Take Private and Successor in the subsequent periods.

Although the period from January 1, 2016 to February 4, 2016 relates to the Predecessor and the period from February 5, 2016 to December 31, 2016 relates to the Successor, to assist with the period-to-period comparison, we have combined these periods as a sum of the amounts without any other adjustments and refer to the combined period as the combined year ended December 31, 2016. Unless otherwise indicated, all results presented for 2016 represent the combined year ended December 31, 2016. This combination does not comply with GAAP or with the rules for pro forma presentation.

Overview

SolarWinds is a leading provider of information technology, or IT, infrastructure management software. Our products give organizations worldwide, regardless of type, size or IT infrastructure complexity, the power to monitor and manage the performance of their IT environments, whether on-premise, in the cloud, or in hybrid models. We combine powerful, scalable, affordable, easy to use products with a high-velocity, low-touch sales model to grow our business while also generating significant cash flow.

We offer over 50 products to monitor and manage network, systems, desktop, application, storage, database and website infrastructures, whether on-premise, in the public or private cloud or in a hybrid IT infrastructure. We intend to continue to innovate and invest in areas of product development that bring new products to market and enhance the functionality, ease of use and integration of our current products. We believe this will strengthen the overall value proposition of our products in any IT environment.

Financial Highlights

Key financial highlights for the period include the following:

	Year Ended December 31,		
	2018	2017	Change
	(in thousands, except percentages)		
GAAP Results			
Total revenue	$ 833,089	$ 728,017	14.4%
Total recurring revenue	668,529	571,384	17.0%
Net loss	(102,066)	(83,866)	21.7%
Net cash flow provided by operations	254,142	232,693	9.2%
Non-GAAP Results (1)			
Non-GAAP total revenue	$ 836,805	$ 740,998	12.9%
Non-GAAP total recurring revenue	672,245	584,362	15.0%
Adjusted EBITDA	407,511	361,871	12.6%

(1) See "Non-GAAP Financial Measures" for a reconciliation of our GAAP to non-GAAP results.

Business Highlights

Highlights for the fourth quarter of 2018 include:

- SolarWinds introduced SolarWinds APM (Application Performance Monitor) to deliver application support for IT Operations and DevOps teams. SolarWinds APM extends the application monitoring capabilities of SolarWinds Server & Application Monitor (SAM) to provide in-depth, code-level monitoring of custom applications. The new solution is designed to deliver deeper performance insights and distributed transaction tracing capabilities across applications hosted in or across on-premise, hybrid IT, and cloud environments.

- SolarWinds released Database Performance Analyzer v12.0, a powerful database and query performance monitoring, analysis, and tuning tool built for many of today's popular databases. The latest enhancements are designed to help database professionals quickly identify and pinpoint the root cause of slow database queries, and easily optimize database tables to help ensure the speed of business-critical applications that rely on them.

- SolarWinds also expanded its RMM capabilities for MSPs with Network Device Monitoring. Network Device Monitoring is built to give MSPs the visibility they need to monitor customer switches, printers, routers, and firewalls—in addition to servers and workstations—from a single pane of glass. With greater visibility into the complete network, MSPs can proactively maintain network devices by getting information on hardware health, performance, and utilization.

Initial Public Offering

In October 2018, we completed our IPO, in which we sold and issued 25,000,000 shares of our common stock at an issue price of $15.00 per share. We raised a total of $375.0 million in gross proceeds from the offering, or approximately $353.0 million in net proceeds after deducting underwriting discounts and commissions of $17.8 million and offering-related expenses of approximately $4.2 million . A portion of the net proceeds from the offering were used to repay the $315.0 million in borrowings outstanding under our second lien term loan. In connection with the voluntary prepayment of the second lien term loan, we paid a $14.2 million prepayment fee.

Financial Model

Our SolarWinds Model has allowed us to grow while maintaining high levels of operating efficiency. Our total revenue was $833.1 million , $728.0 million and $469.4 million for the years ended December 31, 2018 , 2017 and 2016 , respectively. Our non-GAAP total revenue was $836.8 million , $741.0 million and $630.8 million for the years ended December 31, 2018 , 2017 and 2016 , respectively. Recurring revenue, which consists of subscription and maintenance revenue, represented over 80% of our total revenue for the year ended December 31, 2018 . We have increased our recurring revenue as a result of the growth in our subscription sales and the continued growth of our maintenance revenue.

We derive subscription revenue from the sale of our cloud management and MSP products. Our subscription revenue was $265.6 million , $213.8 million and $133.5 million for the years ended December 31, 2018 , 2017 and 2016 , respectively. Our non-GAAP subscription revenue was $266.8 million , $215.2 million and $140.7 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

We derive license and maintenance revenue from the sale of our on-premise network and IT operations management perpetual license products. Our license revenue has declined as a percentage of total revenue primarily due to the higher growth of our recurring revenue and represented approximately 20% of our total revenue in 2018 . Our license revenue was $164.6 million , $156.6 million and $161.2 million for the years ended December 31, 2018 , 2017 and 2016 , respectively. Our non-GAAP license revenue was $164.6 million , $156.6 million and $162.1 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

Our maintenance revenue grows as we add new customers and as existing customers add new products and renew maintenance services. Our maintenance revenue was $402.9 million , $357.6 million and $174.7 million for the years ended December 31, 2018 , 2017 and 2016 , respectively. Our non-GAAP maintenance revenue was $405.5 million , $369.1 million and $328.0 million for the years ended December 31, 2018 , 2017 and 2016 , respectively. The difference between our GAAP and non-GAAP maintenance revenue is primarily the result of the adjustment of our deferred revenue balance to fair value on the date of the Take Private.

Our customers typically renew their maintenance contracts at our standard list maintenance renewal pricing for their applicable products. Our maintenance revenue has grown historically due to the combination of high maintenance renewal rates, typically at list price, list price increases and on-going perpetual license sales to new and existing customers.

We expect that the continued growth in the use of public and private clouds, increased outsourcing of IT management services to MSPs and cross-selling of subscription products into our existing customer base could result in an increase in our subscription revenue. We believe this increase, coupled with continued growth in maintenance revenue, could cause our recurring revenue to increase as a percentage of total revenue over time.

We have also increased international revenue as a percentage of total revenue reaching 35% in 2018 , compared to 33% and 31% in 2017 and 2016, respectively. We expect our international total revenue to increase slightly as a percentage of total revenue as we expand our international sales and marketing efforts across our product lines.

We believe we have the potential to grow license revenue over time as we continue to invest in international sales growth, new product development and enhancements and increased productivity and efficiency of our sales and marketing operations.

We are also building our business to generate strong cash flow over the long term. For the years ended December 31, 2018 , 2017 and 2016 , cash flows from operations were $254.1 million , $232.7 million and $90.2 million, respectively. During those periods, our cash flows from operations were reduced by cash payments for interest on our long-term debt of $142.9 million , $147.1 million and $141.0 million, respectively.

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 derive subscription revenue from fees received for subscriptions to our cloud management and MSP products. Subscription revenue is recognized ratably over the subscription term after all revenue recognition criteria have been met. We generally invoice subscription agreements monthly in arrears based on usage or monthly in advance over the subscription period. Our subscription revenue grows as customers add new subscription products, upgrade the capacity level of their existing subscription products or increase the usage of their subscription products. Our revenue from MSP products increases with the addition of end customers served by our MSP customers, the proliferation of devices managed by those MSPs and the expansion of products used by those MSPs to manage end customers' IT infrastructures.
  - *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. Our maintenance revenue grows when we renew existing maintenance contracts and add new perpetual license customers, and as existing customers add new products. Customers typically renew their maintenance contracts at our standard list maintenance renewal pricing for their applicable products. We generally invoice maintenance contracts annually in advance.
- *License Revenue.* We derive license revenue from sales of perpetual licenses of our products to new and existing customers. We include one year of maintenance services as part of our customers' initial license purchase. We calculate the amount of revenue allocated to the license by subtracting the fair value, which is determined by our standard maintenance renewal price list, of the applicable maintenance services from the total invoice or contract amount. If we increase list prices for maintenance services without increasing prices by a similar percentage for perpetual licenses, the amount of license revenue we recognize at the time of the sale of the perpetual license could be adversely affected.

Cost of Revenue

- *Cost of Recurring Revenue.* Cost of recurring revenue consists of technical support personnel costs, royalty fees, hosting fees and an allocation of overhead costs for our subscription revenue and maintenance services. Allocated costs consist of certain facilities, depreciation, benefits and IT costs allocated based on headcount.
- *Amortization of Acquired Technologies.* We amortize to cost of revenue the capitalized costs of technologies acquired in connection with the Take Private and our other acquisitions.

Operating Expenses

Operating expenses consists of sales and marketing, research and development and general and administrative expenses as well as amortization of acquired intangibles. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, sales commissions, stock-based compensation, contractor fees and an allocation of overhead costs based on headcount.

- *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. We expect to continue to hire personnel globally to drive new sales and maintenance renewals.
- *Research and Development* . Research and development expenses primarily consist of related personnel costs. We expect to continue to grow our research and development organization, particularly internationally.
- *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 charges and other acquisition-related costs, professional fees and other general corporate expenses. In the periods after the Take Private and prior to

our initial public offering, these expenses also included management fees payable to our Sponsors, which were eliminated upon the completion of our initial public offering.

- *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.

Other Income (Expense)

Other income (expense) primarily consists of interest expense, gains (losses) resulting from changes in exchange rates on foreign currency denominated intercompany loans, and losses on extinguishment of debt. We expect interest expense to decrease as we repay indebtedness.

We established a foreign currency denominated intercompany loan as part of the Take Private to provide a conduit to utilize foreign earnings effectively. Until any cash payments are made with respect to this loan, the gains (losses) associated with the changes in exchange rates on amounts borrowed are unrealized non-cash events. Substantially all of these unrealized amounts are related to this one foreign currency denominated loan. As of July 1, 2018, this foreign currency denominated intercompany loan was designated as long-term due to a change in our investment strategy and the new Tax Act. Therefore, beginning on July 1, 2018, the foreign currency transaction gains and losses resulting from remeasurement are recognized as a component of accumulated other comprehensive income (loss).

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

Income tax expense 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 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 may 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.

The Tax Act was enacted on December 22, 2017. The Tax Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that have not been taxed previously in the U.S. and creates new taxes on certain foreign sourced earnings. For additional discussion about our income taxes, see *Note 15. Income Taxes* in the *Notes to Consolidated Financial Statement* s included in Item 8 of Part II of this Annual Report on Form 10-K.

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. 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, Goodwill and Identifiable Intangible Assets

When we acquire businesses, we allocate the purchase price to the fair value of the assets acquired and liabilities assumed, including identifiable intangible assets. Any residual purchase price is recorded as goodwill. Goodwill is allocated to our reporting units expected to benefit from the business combination based on the relative fair value at the acquisition date. We must also estimate the fair value of any contingent consideration.

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. Such valuations and useful life determinations require us to make significant estimates and assumptions. These 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.

An impairment of goodwill is recognized when the carrying amount of the assets exceeds their fair value. The process of evaluating the potential impairment is highly subjective and requires the application of significant judgment. For purposes of the annual impairment test, we assess qualitative factors to determine if it is more likely than not that goodwill might be impaired and whether it is necessary to perform the quantitative impairment test which considers the fair value of the reporting unit compared with the carrying value on the date of the test. If an event occurs that would cause us to revise our estimates and assumptions used in analyzing the value of our goodwill, the revision could result in a non-cash impairment charge that could have a material impact on our financial results. In the fourth quarter of 2018 and 2017 , we performed our annual review of goodwill and concluded that no impairment existed for our reporting units during any of the periods presented. No impairment charges have been required to date.

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 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.

Revenue Recognition

We 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 perpetual license products. In accordance with current guidance, we recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectability is reasonably assured. Our return policy generally does not allow our customers to return software products.

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 an arrangement. We consider delivery to have occurred and recognize revenue when risk of loss transfers to the customer, reseller or distributor 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. 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 generally deliver licenses and subscriptions directly to the end user whether the customer buys direct or through a reseller or distributor. We report revenue net of any sales tax collected.

We sell our software products through our direct sales force and through our distributors and other 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.

Subscription revenue is recognized ratably over the subscription term after all revenue recognition criteria have been met. We generally invoice subscription agreements monthly in arrears based on usage or to a lesser extent in advance of the subscription period.

License revenue reflects the revenue recognized from sales of perpetual licenses of our products. We include one year of maintenance services as part of our customers' initial license purchase. We calculate the amount of revenue allocated to the license by determining the fair value of the maintenance services, which in most cases equals the list price of our maintenance renewal as that is what we charge the customer at the renewal date, and subtracting it from the total invoice or contract amount. We generally recognize maintenance revenue ratably on a daily basis over the contract period which is typically one year.

Stock-Based Compensation

We have granted our employees and directors stock-based incentive awards. Our stock awards vest based on service-based or performance-based vesting conditions. These awards are in the form of stock options and restricted stock units for Predecessor and stock options, restricted stock and restricted stock units for Successor. 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 values of stock option awards are estimated using a Black-Scholes valuation model. The fair value of restricted stock unit awards and restricted stock 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.

We use various assumptions in estimating the fair value of options at the date of grant using the Black-Scholes option model including expected dividend yield, volatility, risk-free rate of return and expected life. We have not paid and do not anticipate paying cash dividends on our common stock; therefore, we assume the expected dividend yield to be zero. We estimate the expected volatility using a weighted average of the historical volatility of our common stock (Predecessor) and historical volatility of comparable public companies from a representative industry peer group (Successor). We based the risk-free rate of return on the average U.S. treasury yield curve for five- and seven-year terms. 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. For all dates, we granted employees options at exercise prices equal to the fair value of the underlying common stock on the date the award was approved. 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.

For share-based awards with performance-based vesting conditions, stock-based compensation expense is recognized 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. Based on the extent to which the performance targets are achieved, vested shares may range from 0% to 150% of the target award amount. At each reporting period, we estimate the probability of the performance-based awards vesting upon the achievement of the specified performance targets. 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.

Restricted stock is purchased at fair market value by the employee and common stock is issued at the date of grant. Restricted stock is subject to certain restrictions, such as vesting and a repurchase right. The common stock acquired by the employee is restricted stock because vesting is conditioned upon (i) continued employment through the applicable vesting date and (ii) for employees at the level of group vice president and above, the achievement of certain financial performance targets determined by our board of directors. The restricted stock is subject to repurchase in the event the stockholder ceases to be employed or engaged (as applicable) by us for any reason or in the event of a change of control or due to certain regulatory burdens. As the restricted stock is purchased at fair market value at the time of grant, there is no stock-based compensation expense recognized related to these awards.

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 our latest forecast of future taxable income, available tax planning strategies that could be implemented, reversal of taxable temporary differences and carryback potential to realize the net deferred tax assets. As of December 31, 2018, we had a valuation allowance of $1.8 million .

The Tax Act contains several provisions that affected us, including a one-time mandatory transition tax on accumulated foreign earnings and a reduction of the corporate income tax rate to 21% effective January 1, 2018, among others. We are required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax, re-measuring our U.S. deferred tax assets and liabilities as well as reassessing the expected realization of our deferred tax assets and liabilities. In response to the Tax Act, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act, or SAB 118, which allowed us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Since the Tax Act was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation was expected over the next 12 months, we previously provided a provisional estimate of the effect of the Tax Act in our financial statements. In the fourth quarter of 2018, we completed our analysis to determine the effect of the Tax Act and recorded immaterial adjustments as of December 31, 2018.

Beginning January 1, 2018, we began recognizing the tax impact of including certain foreign earnings in U.S. taxable income as a period cost. We have not recognized deferred income taxes for local country income and withholding taxes that could be incurred on distributions of certain foreign earnings or for outside basis differences in our subsidiaries, because we plan to indefinitely reinvest such earnings and basis differences.

For additional information on the estimated transition tax payment schedule, see “ *Contractual Obligations and Commitments* .” For additional discussion about our income taxes including the effect of the Tax Act, components of income before income taxes, our provision for income taxes charged to operations, components of our deferred tax assets and liabilities, a reconciliation of income taxes at the U.S. federal statutory rate to our effective tax rate and other tax matters, see *Note 15. Income Taxes* in the *Notes to Consolidated Financial Statements* in Item 8 of Part II of this Annual Report on Form 10-K.

Results of Operations

The comparability of our operating results in fiscal 2018 and 2017 compared to fiscal 2016 was impacted by our accounting for acquisitions, including the Take Private, and related activities. We account for acquired businesses using the acquisition method of accounting, which requires that the assets acquired and liabilities assumed, including deferred revenue, be recorded at the date of acquisition at their respective fair values which could differ from the historical book values. In most cases, adjusting the acquired deferred revenue balances to fair value on the date of the relevant acquisition had the effect of reducing the historical deferred revenue balance and therefore reducing the revenue recognized in subsequent periods.

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

	Successor		Combined	Successor	Predecessor
	Year Ended December 31,		(Unaudited) Year Ended December 31,	Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016	2016
	(in thousands, except per share data)				
Revenue:					
Subscription	$ 265,591	$ 213,754	$ 133,511	$ 126,960	$ 6,551
Maintenance	402,938	357,630	174,734	145,234	29,500
Total recurring revenue	668,529	571,384	308,245	272,194	36,051
License	164,560	156,633	161,176	149,900	11,276
Total revenue	833,089	728,017	469,421	422,094	47,327
Cost of revenue:					
Cost of recurring revenue	70,744	60,698	55,789	46,238	9,551
Amortization of acquired technologies	175,991	171,033	149,703	147,517	2,186
Total cost of revenue	246,735	231,731	205,492	193,755	11,737
Gross profit	586,354	496,286	263,929	228,339	35,590
Operating expenses:					
Sales and marketing	227,468	205,631	212,419	165,355	47,064
Research and development	96,272	86,618	97,989	65,806	32,183
General and administrative	80,641	67,303	150,647	71,011	79,636
Amortization of acquired intangibles	66,788	67,080	59,470	58,553	917
Total operating expenses	471,169	426,632	520,525	360,725	159,800
Operating income (loss)	115,185	69,654	(256,596)	(132,386)	(124,210)
Other income (expense):					
Interest expense, net	(142,008)	(169,786)	(170,373)	(169,900)	(473)
Other income (expense), net	(94,887)	38,664	(57,243)	(56,959)	(284)
Total other income (expense)	(236,895)	(131,122)	(227,616)	(226,859)	(757)
Loss before income taxes	(121,710)	(61,468)	(484,212)	(359,245)	(124,967)
Income tax expense (benefit)	(19,644)	22,398	(149,807)	(96,651)	(53,156)
Net loss	$ (102,066)	$ (83,866)	$ (334,405)	$ (262,594)	$ (71,811)
Net income (loss) available to common stockholders	$ 364,635	$ (351,873)	$ (552,309)	$ (480,498)	$ (71,811)
Net income (loss) available to common stockholders per share:					
Basic earnings (loss) per share	$ 2.60	$ (3.50)		$ (4.98)	$ (1.00)
Diluted earnings (loss) per share	$ 2.56	$ (3.50)		$ (4.98)	$ (1.00)
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	140,301	100,433		96,465	71,989
Shares used in computation of diluted earnings (loss) per share	142,541	100,433		96,465	71,989

Comparison of the Years Ended December 31, 2018 and 2017

Revenue

	Year Ended December 31,				
	2018		2017		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Subscription	$ 265,591	31.9%	$ 213,754	29.4%	$ 51,837
Maintenance	402,938	48.4	357,630	49.1	45,308
Total recurring revenue	668,529	80.2	571,384	78.5	97,145
License	164,560	19.8	156,633	21.5	7,927
Total revenue	$ 833,089	100.0%	$ 728,017	100.0%	$ 105,072

The impact to revenue as a result of purchase accounting adjustments during the relevant periods were as follows:

	Year Ended December 31,		
	2018	2017	
	Amount	Amount	Change
	(in thousands)		
Subscription	$ 1,166	$ 1,464	$ (298)
Maintenance	2,550	11,514	(8,964)
Total recurring revenue	3,716	12,978	(9,262)
License	—	3	(3)
Total revenue	$ 3,716	$ 12,981	$ (9,265)

Total revenue increased $105.1 million , or 14.4% , for the year ended December 31, 2018 compared to the year ended December 31, 2017 . Revenue from North America was approximately 65% and 67% of total revenue for the years ended December 31, 2018 and 2017 , respectively. Other than the United States, no single country accounted for 10% or more of our total revenue during these periods.

Recurring Revenue

Subscription Revenue. Subscription revenue increased $51.8 million , or 24.3% , for the year ended December 31, 2018 compared to the year ended December 31, 2017 , primarily due to sales of additional cloud management and MSP products. Our subscription revenue increased as a percentage of our total revenue for the year ended December 31, 2018 compared to the year ended December 31, 2017 .

Our net retention rate for our subscription products was approximately 105% and 104%, respectively, for the years ended December 31, 2018 and 2017 . We define our net retention rate for subscription products as the implied monthly subscription revenue at the end of a period for the base set of customers from which we generated subscription revenue in the year prior to the calculation, divided by the implied monthly subscription revenue one year prior to the date of calculation for that same customer base. We are investing to improve our net retention rate, including by enhancing and expanding our cloud management and MSP products.

Maintenance Revenue. Maintenance revenue increased $45.3 million , or 12.7% , for the year ended December 31, 2018 compared to the year ended December 31, 2017 . Of this change, $36.3 million was attributable to growth in our maintenance renewal customer base from sales of our perpetual license products, strong maintenance renewal rates and to a lesser extent, a maintenance price increase. The remaining $9.0 million increase was attributable to a smaller purchase accounting adjustment to deferred revenue in the year ended December 31, 2018 as compared to the year ended December 31, 2017 .

Our maintenance renewal rate for our perpetual license products was approximately 95% and 93%, respectively, for the years ended December 31, 2018 and 2017 . We define our maintenance renewal rate as the sales of maintenance services for all existing maintenance contracts expiring in a period, divided by the sum previous sales of maintenance services corresponding to those

services expiring in the current period. 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 increased $7.9 million , or 5.1% , due to increased sales of our licensed products, particularly in our international locations. We believe our more tenured sales and marketing leadership teams in international regions during 2018 was primarily the reason for the increased growth in these regions.

Cost of Revenue

	Year Ended December 31,				
	2018		2017		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Cost of recurring revenue	$ 70,744	8.5%	$ 60,698	8.3%	$ 10,046
Amortization of acquired technologies	175,991	21.1	171,033	23.5	4,958
Total cost of revenue	$ 246,735	29.6%	$ 231,731	31.8%	$ 15,004

Total cost of revenue increased in the year ended December 31, 2018 compared to the year ended December 31, 2017 primarily due to increases in amortization of acquired technologies of $5.0 million , royalty and hosting fees related to our subscription products of $4.0 million , depreciation and other amortization of $3.1 million and personnel costs to support new customers and additional product offerings of $3.0 million . Amortization of acquired technologies includes $165.6 million and $163.0 million of amortization related to the Take Private for the years ended December 31, 2018 and 2017 , respectively, with the remaining balance related primarily to the LOGICnow acquisition in May 2016.

Operating Expenses

	Year Ended December 31,				
	2018		2017		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Sales and marketing	$ 227,468	27.3%	$ 205,631	28.2%	$ 21,837
Research and development	96,272	11.6	86,618	11.9	9,654
General and administrative	80,641	9.7	67,303	9.2	13,338
Amortization of acquired intangibles	66,788	8.0	67,080	9.2	(292)
Total operating expenses	$ 471,169	56.6%	$ 426,632	58.6%	$ 44,537

Sales and Marketing. Sales and marketing expenses increased $21.8 million , or 10.6% , primarily due to increases in personnel costs of $18.1 million and marketing program costs of $2.8 million . We increased our sales and marketing employee headcount to support the sales of additional products and growth in the business.

Research and Development. Research and development expenses increased $9.7 million , or 11.1% , primarily due to an increase in personnel costs of $12.5 million . We increased our worldwide research and development employee headcount to expedite delivery of product enhancements and new product offerings to our customers. This increase was partially offset by reductions in contract services of $1.7 million and acquisition and Take Private related costs of $1.4 million .

General and Administrative . General and administrative expenses increased $13.3 million , or 19.8% , primarily due to a $11.7 million increase in personnel costs to support the growth of the business and a $4.1 million increase in offering costs related to our IPO, public company costs and other professional fees. These increases were partially offset by a decrease in acquisition and Take Private related costs of $3.7 million.

Amortization of Acquired Intangibles. Amortization of acquired intangibles decreased $0.3 million , or 0.4% , for the year ended December 31, 2018 compared to the year ended December 31, 2017 due to certain intangible assets from the Take Private being fully amortized during the year, partially offset by additional expense from the addition of intangible assets related to acquisitions. Amortization of intangible assets includes $48.2 million and $50.4 million of amortization related to the Take Private for the years ended December 31, 2018 and 2017 , respectively, with the remaining balance related primarily to the LOGICnow acquisition in May 2016.

Interest Expense, Net

	Year Ended December 31,				
	2018		2017		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Interest expense, net	$ (142,008)	(17.0)%	$ (169,786)	(23.3)%	$ 27,778

Interest expense, net decreased by $27.8 million , or 16.4% , in the year ended December 31, 2018 compared to the year ended December 31, 2017 . The decrease in interest expense is primarily due to the reduction in the interest rate spread under our credit facilities resulting from the refinancing transaction we completed in March 2018. In addition, in October 2018 we repaid the $315.0 million in outstanding borrowings under our second lien term loan. See *Note 9. 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,				
	2018		2017		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Unrealized net transaction gains (losses) related to remeasurement of intercompany loans	$ (12,565)	(1.5)%	$ 56,539	7.8 %	$ (69,104)
Loss on extinguishment of debt	(80,137)	(9.6)	(18,559)	(2.5)	(61,578)
Other income (expense)	(2,185)	(0.3)	684	0.1	(2,869)
Total other income (expense), net	$ (94,887)	(11.4)%	$ 38,664	5.3 %	$ (133,551)

Other income (expense), net decreased by $133.6 million in the year ended December 31, 2018 compared to the year ended December 31, 2017 primarily due to the impact of changes in foreign currency exchange rates related to various intercompany loans for the period, a loss of $80.1 million on extinguishment of debt related to the refinancing of our credit facilities in March 2018 and the repayment of the second lien term loan in October 2018. See *Note 9. 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.

Income Tax Expense (Benefit)

	Year Ended December 31,				
	2018		2017		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Income tax expense (benefit)	$ (19,644)	(2.4)%	$ 22,398	3.1%	$ (42,042)
Effective tax rate	16.1%		(36.4)%		52.5%

Our income tax benefit for the year ended December 31, 2018 increased by $42.0 million as compared to the year ended December 31, 2017 primarily as a result of the one–time tax impacts recorded in 2017 from the enactment of the Tax Act. For additional discussion about our income taxes, 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.

Comparison of the Years Ended December 31, 2017 and 2016 (Combined)

Our combined results for the year ended December 31, 2016 represent the addition of the Predecessor period from January 1, 2016 through February 4, 2016 and the Successor period from February 5, 2016 to December 31, 2016. This combination does not comply with GAAP or with the rules for pro forma presentation, but is presented because we believe it provides the most meaningful comparison of our results.

Revenue

	Successor		Combined		
	Year Ended December 31,		(Unaudited) Year Ended December 31,		
	2017		2016		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Subscription	$ 213,754	29.4%	$ 133,511	28.4%	$ 80,243
Maintenance	357,630	49.1	174,734	37.2	182,896
Total recurring revenue	571,384	78.5	308,245	65.7	263,139
License	156,633	21.5	161,176	34.3	(4,543)
Total revenue	$ 728,017	100.0%	$ 469,421	100.0%	$ 258,596

The impact to revenue as a result of purchase accounting adjustments during the relevant periods were as follows:

	Successor	Combined	
	Year Ended December 31,	(Unaudited) Year Ended December 31,	
	2017	2016	
	Amount	Amount	Change
	(in thousands)		
Subscription	$ 1,464	$ 7,219	$ (5,755)
Maintenance	11,514	153,220	(141,706)
Total recurring revenue	12,978	160,439	(147,461)
License	3	921	(918)
Total revenue	$ 12,981	$ 161,360	$ (148,379)

Total revenue increased $258.6 million , or 55.1% , in 2017 compared to 2016 primarily due to the impact of the purchase accounting adjustment to deferred revenue recorded in 2016 related to the Take Private, as well as increases in our recurring revenue due to a larger maintenance revenue base in 2017 while maintaining strong renewal rates and increased sales of our subscription products.

Revenue from North America was approximately 67% and 69% of total revenue in 2017 and 2016 , respectively. Other than the United States, no single country accounted for 10% or more of our total revenue during these periods.

Recurring Revenue

Subscription Revenue. Subscription revenue increased $80.2 million , or 60.1% , which includes $5.8 million less impact in 2017 of purchase accounting as compared to 2016. The increase in subscription revenue was primarily due to increased sales of new subscription products introduced by us in 2017 and 2016. LOGICnow products contributed approximately $57.5 million of subscription revenue in 2016 prior to their integration with our existing MSP products. Our net retention rate for our subscription products averaged approximately 104% over each of the years ended December 31, 2017 and 2016 .

Maintenance Revenue. Maintenance revenue increased $182.9 million , or 104.7% , which includes $141.7 million less impact in 2017 of purchase accounting as compared to 2016. The increase in maintenance revenue other than as a result of the impact of purchase accounting was primarily due to a growing maintenance renewal customer base from sales of our perpetual license products and upgrades from existing customers, a strong maintenance renewal rate, and to a lesser extent, a maintenance price

increase. Our maintenance renewal rate for our perpetual license products was approximately 93% and 94%, respectively, for the years ended December 31, 2017 and 2016 .

License Revenue

License revenue decreased $4.5 million , or 2.8% , in 2017 compared to 2016 due to a reduction in license sales that we believe was a result of our reduction in sales and marketing expenses beginning in the second half of 2016 and into 2017 as we focused on driving a higher level of efficiency and managed our business to increase cash flow after the Take Private.

Cost of Revenue

	Successor				Combined					
	Year Ended December 31,				(Unaudited) Year Ended December 31,					
	2017				2016					
	Amount		Percentage of Revenue		Amount		Percentage of Revenue		Change	
	(in thousands, except percentages)									
Cost of recurring revenue	$	60,698	8.3%		$	55,789	11.9%		$	4,909
Amortization of acquired technologies		171,033	23.5			149,703	31.9			21,330
Total cost of revenue	$	231,731	31.8%		$	205,492	43.8%		$	26,239

Cost of recurring revenue increased in absolute dollars primarily due to a $5.0 million increase in personnel costs to support new customers and additional product offerings from acquisitions. However, cost of recurring revenue decreased as a percentage of revenue primarily as a result of our integration of LOGICnow and related restructuring activities to improve operating efficiencies.

Amortization of acquired technologies increased in 2017 compared to 2016 primarily due to a full year of amortization expense in 2017 related to the Take Private and LOGICnow acquisition, which occurred in February and May 2016, respectively. Amortization of acquired technologies includes $163.0 million and $143.0 million of amortization related to the Take Private for 2017 and 2016 , respectively, with the remaining primarily related to the LOGICnow acquisition in May 2016.

Operating Expenses

	Successor				Combined					
	Year Ended December 31,				(Unaudited) Year Ended December 31,					
	2017				2016					
	Amount		Percentage of Revenue		Amount		Percentage of Revenue		Change	
	(in thousands, except percentages)									
Sales and marketing	$	205,631	28.2%		$	212,419	45.3%		$	(6,788)
Research and development		86,618	11.9			97,989	20.9			(11,371)
General and administrative		67,303	9.2			150,647	32.1			(83,344)
Amortization of acquired intangibles		67,080	9.2			59,470	12.7			7,610
Total operating expenses	$	426,632	58.6%		$	520,525	110.9%		$	(93,893)

Sales and Marketing. Sales and marketing expenses decreased $6.8 million , or 3.2% , in 2017 as compared to 2016 . Personnel and marketing program costs increased in 2017 by $18.9 million and $7.7 million , respectively, to support the growth of the business and as a result of a full year of sales and marketing expenses related to our increased product portfolio primarily related to the products from the LOGICnow acquisition which we completed in May 2016. These increases were offset by a reduction of $30.7 million in stock-based compensation expense due to higher costs related to stock-based compensation in 2016 as a result of the Take Private.

Research and Development. Research and development expenses decreased $11.4 million , or 11.6% , in 2017 as compared to 2016 . Personnel costs increased in 2017 by $14.9 million as we invested in the development of our cloud management products

and as a result of a full year of research and development expenses for the LOGICnow products we acquired in May 2016. This increase was more than offset by a reduction of $23.8 million in stock-based compensation in 2016 as a result of the Take Private.

General and Administrative . General and administrative expenses decreased $83.3 million , or 55.3% , in 2017 as compared to 2016 . Personnel costs increased in 2017 by $5.1 million to support company growth. This increase was more than offset by a reduction of $27.6 million in stock-based compensation expense in 2017 and a reduction of $64.0 million in acquisition-related costs due to expenses incurred in 2016 primarily related to the Take Private and to a lesser extent the LOGICnow acquisition in May 2016.

Amortization of Acquired Intangibles. Amortization of acquired intangible assets increased $7.6 million , or 12.8% , in 2017 compared to 2016 primarily due to the increased amortization related to the intangible assets acquired as part of the May 2016 LOGICnow acquisition. Amortization of intangible assets includes $50.4 million and $47.8 million of amortization related to the Take Private for 2017 and 2016 , respectively, with the remaining balance related to other acquisitions.

Interest Expense, Net

	Successor		Combined		
	Year Ended December 31,		(Unaudited) Year Ended December 31,		
	2017		2016		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Interest expense, net	$ (169,786)	(23.3)%	$ (170,373)	(36.3)%	$ 587

Interest expense, net decreased by $0.6 million , or 0.3% , in 2017 compared to 2016 . The decrease in interest expense was due to the reduction in interest rates on our credit facilities resulting from a refinancing of such facilities in February 2017. See *Note 9. 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

	Successor		Combined		
	Year Ended December 31,		(Unaudited) Year Ended December 31,		
	2017		2016		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Unrealized net transaction gains (losses) related to remeasurement of intercompany loans	$ 56,539	7.8 %	$ (26,651)	(5.7)%	$ 83,190
Loss on extinguishment of debt	(18,559)	(2.5)	(22,767)	(4.9)	4,208
Other income (expense)	684	0.1	(7,825)	(1.7)	8,509
Total other income (expense), net	$ 38,664	5.3 %	$ (57,243)	(12.2)%	$ 95,907

Other income (expense), net increased by $95.9 million in 2017 compared to 2016 primarily related to an increase of $83.2 million of net unrealized foreign currency exchange transaction gains related to various intercompany loans, a decrease of $5.6 million in foreign currency losses and a reduced loss on extinguishment of debt related to the refinancing of our credit facilities in February 2017 as compared to the refinancing of our credit facilities in August 2016.

Income Tax Expense (Benefit)

	Successor		Combined		
	Year Ended December 31,		(Unaudited) Year Ended December 31,		
	2017		2016		
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Change
	(in thousands, except percentages)				
Income tax expense (benefit)	$ 22,398	3.1%	$ (149,807)	(31.9)%	$ 172,205
Effective tax rate	(36.4)%		30.9%		(67.3)%

Our income tax benefit for 2016 decreased by $172.2 million to an income tax expense for 2017 . The decrease is primarily related to the change in income (loss) before income taxes of $422.7 million , the deferred tax assets remeasurement and a one-time transition tax due to the Tax Act. Excluding the tax impact from the Tax Act, the 2017 effective tax rate would have been 21.3%, which was relatively consistent with 2016. For additional discussion about our income taxes, 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.

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.

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, acquisition related adjustments and restructuring charges, as well as the related tax impacts of these items can have a material impact on our GAAP financial results.

Non-GAAP Revenue

We define non-GAAP subscription revenue, non-GAAP maintenance revenue, non-GAAP license revenue and non-GAAP total revenue, as subscription revenue, maintenance revenue, license revenue and total revenue, respectively, excluding the impact of purchase accounting primarily from our Take Private transaction in early 2016 and the acquisition of LOGICnow. We monitor these measures to assess our performance because we believe our revenue growth rates would be overstated without these adjustments. We believe presenting non-GAAP subscription revenue, non-GAAP maintenance revenue, non-GAAP license revenue and non-GAAP total revenue aids in the comparability between periods and in assessing our overall operating performance. This adjustment to GAAP revenue impacted our revenue through the fourth quarter of 2018. Our 2019 revenue results will no longer be impacted by this adjustment.

	Successor		Combined	Successor	Predecessor
	Year Ended December 31,		(Unaudited) Year Ended December 31,	Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016	2016
			(in thousands)		
Revenue:					
GAAP subscription revenue	$ 265,591	$ 213,754	$ 133,511	$ 126,960	$ 6,551
Impact of purchase accounting	1,166	1,464	7,219	7,219	—
Non-GAAP subscription revenue	266,757	215,218	140,730	134,179	6,551
GAAP maintenance revenue	402,938	357,630	174,734	145,234	29,500
Impact of purchase accounting	2,550	11,514	153,220	153,220	—
Non-GAAP maintenance revenue	405,488	369,144	327,954	298,454	29,500
GAAP total recurring revenue	668,529	571,384	308,245	272,194	36,051
Impact of purchase accounting	3,716	12,978	160,439	160,439	—
Non-GAAP total recurring revenue	672,245	584,362	468,684	432,633	36,051
GAAP license revenue	164,560	156,633	161,176	149,900	11,276
Impact of purchase accounting	—	3	921	921	—
Non-GAAP license revenue	164,560	156,636	162,097	150,821	11,276
Total GAAP revenue	$ 833,089	$ 728,017	$ 469,421	$ 422,094	$ 47,327
Impact of purchase accounting	$ 3,716	$ 12,981	$ 161,360	$ 161,360	$ —
Total non-GAAP revenue	$ 836,805	$ 740,998	$ 630,781	$ 583,454	$ 47,327

Non-GAAP Operating Income and Non-GAAP Operating Margin

We provide non-GAAP operating income and related non-GAAP margin using non-GAAP revenue as discussed above and excluding such items as the write-down of deferred revenue related to purchase accounting, amortization of acquired intangible assets, stock-based compensation expense, acquisition and Sponsor related costs and restructuring charges and other. 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. 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.* We provide non-GAAP information that excludes expenses related to stock-based compensation. 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. Because of these unique characteristics of stock-based compensation, management excludes these expenses when analyzing the organization's business performance.

- *Acquisition and Sponsor Related Costs.* We exclude certain expense items resulting from the Take Private and other 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. 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 Sponsor related 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 Charges and Other.* We provide non-GAAP information that excludes restructuring charges such as severance and the estimated costs of exiting and terminating facility lease commitments, as they relate to our corporate restructuring and exit activities. These restructuring charges 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 charges 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.

	Successor		Combined	Successor	Predecessor
	Year Ended December 31,		(Unaudited) Year Ended December 31,	Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016	2016
	(in thousands, except margin data)				
GAAP operating income (loss)	$ 115,185	$ 69,654	$ (256,596)	$ (132,386)	$ (124,210)
Impact of purchase accounting	3,716	12,981	161,360	161,360	—
Stock-based compensation expense	5,833	80	87,780	17	87,763
Amortization of acquired technologies	175,991	171,033	149,703	147,517	2,186
Amortization of acquired intangibles	66,788	67,080	59,470	58,553	917
Acquisition and Sponsor related costs	20,401	23,580	97,556	44,512	53,044
Restructuring costs and other	2,999	2,858	4,526	2,962	1,564
Non-GAAP operating income	$ 390,913	$ 347,266	$ 303,799	$ 282,535	$ 21,264
GAAP operating margin	13.8%	9.6%	(54.7)%	(31.4)%	(262.5)%
Non-GAAP operating margin	46.7%	46.9%	48.2 %	48.4 %	44.9 %

Adjusted EBITDA and Adjusted EBITDA Margin

We regularly monitor adjusted EBITDA, as it is a measure we use to assess our operating performance. We define adjusted EBITDA as net income or loss, excluding the impact of purchase accounting on total revenue, amortization of acquired intangible assets and developed technology, depreciation expense, stock-based compensation expense, restructuring and other charges, acquisition and Sponsor related costs, interest expense, net, debt extinguishment and refinancing costs, unrealized foreign currency (gains) losses, and income tax expense (benefit). We define adjusted EBITDA margin as adjusted EBITDA divided by non-GAAP 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 the write-down of deferred revenue due to purchase accounting in connection with our acquisition, and therefore includes revenue that will never be recognized under GAAP; 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.

	Successor		Combined	Successor	Predecessor
	Year Ended December 31,		(Unaudited) Year Ended December 31,	Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016	2016
	(in thousands, except margin data)				
Net loss	$ (102,066)	$ (83,866)	$ (334,405)	$ (262,594)	$ (71,811)
Amortization and depreciation	258,362	250,876	219,233	215,325	3,908
Income tax expense (benefit)	(19,644)	22,398	(149,807)	(96,651)	(53,156)
Interest expense, net	142,008	169,786	170,373	169,900	473
Impact of purchase accounting on total revenue	3,716	12,981	161,360	161,360	—
Unrealized foreign currency (gains) losses [1]	14,367	(56,368)	34,598	34,462	136
Acquisition and Sponsor related costs	20,401	23,580	97,598	44,512	53,086
Debt related costs [2]	81,535	19,546	23,907	23,907	—
Stock-based compensation expense	5,833	80	87,780	17	87,763
Restructuring costs and other	2,999	2,858	4,526	2,962	1,564
Adjusted EBITDA	$ 407,511	$ 361,871	$ 315,163	$ 293,200	$ 21,963
Adjusted EBITDA margin	48.7%	48.8%	50.0%	50.3%	46.4%

(1) Unrealized foreign currency (gains) losses primarily relate to the remeasurement of our intercompany loans and to a lesser extent, unrealized foreign currency (gains) losses on selected assets and liabilities.

(2) Debt related costs include fees related to our credit agreements, debt refinancing costs and the related write-off of debt issuance costs. The fees related to our credit agreements were $1.4 million , $0.9 million and $1.1 million for the years ended December 31, 2018 , 2017 and 2016 (on a combined basis) respectively. See *Note 9. 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 and the write-off of debt issuance costs.

Liquidity and Capital Resources

Cash and cash equivalents were $382.6 million as of December 31, 2018 . Our international subsidiaries held approximately $156.1 million of cash and cash equivalents, of which 57.2% were held in Euros. The Tax Act imposes a mandatory transition tax on accumulated foreign earnings and eliminates U.S. federal income taxes on foreign subsidiary distribution. Effective January 1, 2018, we began recognizing the tax impact of including certain foreign earnings in U.S. taxable income as a period cost. 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. For this reason, we have not recognized deferred income taxes for local country income and withholding taxes that could be incurred on distributions of certain foreign earnings or for outside basis differences in our subsidiaries.

Our primary source of cash for funding operations and growth has been through cash provided by operating activities. 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.

In October 2018, we completed our IPO, in which we sold and issued 25,000,000 shares of our common stock at an issue price of $15.00 per share. We raised a total of $375.0 million in gross proceeds from the offering, or approximately $353.0 million in net proceeds after deducting underwriting discounts and commissions of $17.8 million and offering-related expenses of approximately $4.2 million . A portion of the net proceeds from the offering were used to repay the $315.0 million in borrowings outstanding under our second lien term loan. In connection with the voluntary prepayment of the second lien term loan, we paid a $14.2 million prepayment fee.

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, 2018 , our total indebtedness was $2.0 billion , with up to $125.0 million of available borrowings under our revolving credit facility. See *Note 9. 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

On March 15, 2018, or the Refinancing Date, we entered into Amendment No. 4 to First Lien Credit Agreement, originally dated as of February 5, 2016.

The First Lien Credit Agreement, as amended, provides for a senior secured revolving credit facility in an aggregate principal amount of $125.0 million, or the Revolving Credit Facility, consisting of a $25.0 million U.S. dollar revolving credit facility, or the U.S. Dollar Revolver, and a $100.0 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 original aggregate principal amount of $1,990.0 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.

Under the U.S. Dollar Revolver, $7.5 million of commitments will mature on February 5, 2021, and $17.5 million along with all commitments under the Multicurrency Revolver will mature on February 5, 2022. The First Lien Term Loan will mature on February 5, 2024.

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

Second Lien Credit Facility

On the Refinancing Date, we entered into the Second Lien Credit Agreement with Wilmington Trust, National Association, or Wilmington Trust, as administrative agent and collateral agent, and the other parties thereto. The Second Lien Credit Agreement provided for a term loan facility, or the Second Lien Credit Facility, in an original aggregate principal amount of $315.0 million.

In October 2018, we completed our IPO and used a portion of our net proceeds from the offering to repay the outstanding borrowings and accrued interest under our Second Lien Credit Facility.

Summary of Cash Flows

Summarized cash flow information is as follows:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Net cash provided by operating activities	$ 254,142	$ 232,693	$ 61,175	$ 29,015
Net cash provided by (used in) investing activities	(67,993)	(34,379)	(4,854,761)	21,714
Net cash provided by (used in) financing activities	(75,724)	(35,354)	4,898,290	(1,021)
Effect of exchange rate changes on cash and cash equivalents	(5,521)	13,113	(3,061)	3,086
Net increase in cash and cash equivalents	104,904	176,073	101,643	52,794

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 2018 compared to 2017, the increase in cash provided by operating activities was primarily due to the net effect of non-cash items of $353.3 million , partially offset by our net loss of $102.1 million . The changes in our operating assets and liabilities of $3.0 million were primarily due to the timing of sales and cash payments and receipts. Other adjustments include losses on extinguishment of debt of $80.1 million related to our March 2018 debt refinancing and October 2018 repayment of our Second Lien Credit Facility.

For 2017 compared to 2016 (Successor), the increase in cash provided by operating activities was primarily due to changes in our operating assets and liabilities of $ 185.8 million and the net effect of non-cash items of $ 130.7 million offset by our net loss of $83.9 million . The changes in our operating assets and liabilities were driven by the increase in income taxes payable due to the one-time transition tax of $120.8 million recorded pursuant to the Tax Act and a $35.5 million tax refund received related to the net operating loss generated from the Take Private. Non-cash expenses were offset by a net change in deferred tax assets and liabilities of $101.5 million related to the Tax Act and a gain on foreign currency exchange rates.

For 2016 (Successor) compared to 2016 (Predecessor), the increase in cash provided by operating activities was primarily due to the net effect of non-cash items of $183.8 million and the changes in our operating assets and liabilities of $139.9 million , partially offset by our net loss of $262.6 million . Non-cash items increased primarily due to an increase in amortization related to intangible assets recorded as part of the Take Private offset by the net change in deferred tax assets and liabilities of $108.7 million related to the intangible amortization. As part of the purchase accounting adjustments related to the Take Private, deferred revenue was recorded at the fair value as of the Take Private date which had the effect of reducing the historical deferred revenue balance and therefore reducing revenue recognized in the subsequent periods. In 2016 (Successor), the cash inflow from deferred revenue of $186.5 million was the result of new maintenance contracts being recorded offset by this reduced revenue recognized during the period.

For 2016 (Predecessor), we recorded an increase in accrued liabilities and other and accounts payable related to accrued Take Private transaction costs and other related expenses resulting in an increase in operating liabilities and reflecting a cash inflow related to accrued liabilities and other of $43.9 million and accounts payable of $10.7 million for the period.

Investing Activities

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

Net cash used in investing activities increased in 2018 compared to 2017 due to an increase in cash used for acquisitions and property and equipment, partially offset by cash proceeds related to the sale of a cost-method investment. In 2018, we completed acquisitions for a combined purchase price of approximately $60.6 million in cash, net of cash acquired.

Net cash used in investing activities decreased in 2017 compared to 2016 due to the cash used to complete the Take Private transaction and acquisitions in 2016 (Successor period) . We used $4.3 billion of cash to complete the Take Private, net of cash acquired and $507.5 million of cash for acquisitions, primarily related to the LOGICnow acquisition in 2016.

Financing Activities

Excluding the proceeds from our IPO, financing cash flows consist primarily of issuance and repayments associated with our long-term debt, fees related to refinancing our long-term debt, offering costs and proceeds from the issuance of shares of common stock through equity incentive plans.

Net cash used in financing activities increased in 2018 compared to 2017 primarily due to deemed gross repayments and borrowings made in connection with the refinancing of our debt agreements, the repayment of our Second Lien Credit Facility and proceeds from the issuance of common stock from our IPO and other equity-based awards. The increase was also driven by quarterly principal payments under our First Lien Credit Agreement, a redemption premium in connection with the redemption and exchange of our second lien floating rate notes in March 2018 and a prepayment fee in connection with the repayment of our Second Lien Credit Facility in October 2018.

Net cash used in financing activities in 2017 was primarily related to debt repayments on our outstanding borrowings under our revolving credit facility and quarterly principal payments under our First Lien Credit Agreement.

Net cash provided by financing activities in 2016 (Successor period) was primarily due to $2.7 billion in proceeds from the issuance of common stock and equity-based awards and $2.7 billion in proceeds from borrowings under our credit agreements, partially offset by $341.2 million in debt repayments. The combined proceeds from financing activities are primarily related to the funds necessary to complete the Take Private and the LOGICnow acquisition.

Contractual Obligations and Commitments

The following table summarizes our outstanding contractual obligations as of December 31, 2018 that require us to make future cash payments:

	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(in thousands)				
Long-term debt obligations (1)	$ 1,970,100	$ 19,900	$ 39,800	$ 39,800	$ 1,870,600
Cash interest expense (1)	523,524	104,912	206,919	202,378	9,315
Operating leases	124,016	15,287	29,243	25,752	53,734
Purchase obligations (2)	71,970	59,934	12,036	—	—
Take Private deferred stock payments (3)	3,257	3,014	243	—	—
Acquisition related retention and deferred compensation	3,908	3,908	—	—	—
Transition tax payable (4)	104,592	8,893	17,785	23,531	54,383
Total (5)	$ 2,801,367	$ 215,848	$ 306,026	$ 291,461	$ 1,988,032

(1) Represents principal maturities of our Senior Secured First Lien Credit Facility in effect at December 31, 2018 . The estimated cash interest expense is based upon an interest rate of 5.27%.
(2) Purchase obligations primarily represent outstanding purchase orders for purchases of software license and support fees, marketing activities, hosting, corporate health insurance costs, accounting, legal and contractor fees and computer hardware and software costs.
(3) As a result of the Take Private, certain restricted stock units, or RSUs, not subject to accelerated vesting were cancelled and converted into the right to receive the per share price of $60.10 less applicable withholding taxes shortly after those RSUs would have vested based on the underlying original RSU vesting schedule and subject to the continued employment of the holders of those RSUs. 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 details.
(4) Represents the provisional one–time transition tax as a result of the Tax Act which we have elected to pay over eight years. 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 of the impact of the Tax Act.
(5) Other long-term obligations on our balance sheet at December 31, 2018 included non-current income tax liabilities of $23.8 million, which are primarily related to unrecognized tax benefits. We have not included this amount in the table above because we cannot reasonably estimate the period during which this obligation may be incurred, if at all.

Off-Balance Sheet Arrangements

During the year ended December 31, 2018 , 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.

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, 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 $382.6 million and $277.7 million at December 31, 2018 and 2017 , respectively. Our cash and cash equivalents consist primarily of bank demand deposits and money market funds. We hold cash, 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, 2018 .

We had total indebtedness with an outstanding principal balance of $2.0 billion and $2.4 billion at December 31, 2018 and 2017 , respectively. Borrowings outstanding under our various credit agreements bear interest at variable rates equal to applicable margins plus specified base rates or LIBOR-based rates with a 1% floor. As of December 31, 2018 and 2017 , the annual weighted-average rate on borrowings was 5.3% and 6.5% , respectively. If there was a hypothetical 100 basis point increase in interest rates, the annual impact to interest expense would be approximately $19.7 million. This hypothetical change in interest expense has been calculated based on the borrowings outstanding at December 31, 2018 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 $2.0 billion U.S. dollar term loans as of December 31, 2018 , not subject to market pricing.

See *Note 9. 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. We primarily conduct business in the following locations: the United States, Europe, Canada, South America and Australia. This exposure is the result of selling in multiple currencies, growth in our international investments, additional headcount in foreign countries and operating in countries where the functional currency is the local currency. Specifically, 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 United States Dollar, or USD. These exposures may change over time as business practices evolve and economic conditions change. 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 United Kingdom and European subsidiaries, which have British Pound Sterling and Euro functional currencies, respectively. This results in a two-step currency exchange process wherein the currencies other than the British Pound Sterling and Euro are first converted into those functional currencies 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. Our foreign currency denominated intercompany loan was established as part of the Take Private to provide a conduit to utilize foreign earnings effectively. The gains (losses) associated with the changes in exchange rates on amounts borrowed are unrealized non-cash events. As of July 1, 2018, the foreign currency denominated intercompany loan is designated as long-term due to a change in our investment strategy and the new Tax Act. Therefore, beginning on July 1, 2018, the foreign currency transaction gains and losses resulting from remeasurement are recognized as a component of accumulated other comprehensive income (loss).

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, 2018 and 2017 , 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, 2018 and 2017 .

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).

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this item is incorporated by reference to the Consolidated Financial Statements set forth on pages F-1 through F-44 hereof.

ITEM 9. CHANGES IN 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, 2018 . 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, 2018 , 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 of Internal Control over Financial Reporting

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

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, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

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 2019 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

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

Equity Compensation Plan Information

The following table provides information as of December 31, 2018 about our common stock that may be issued under the Company's equity incentive plans, including the SolarWinds Corporation Equity Plan, or 2016 Plan, the SolarWinds Corporation 2018 Equity Incentive Plan, or 2018 Plan, and the SolarWinds Corporation 2018 Employee Stock Purchase Plan, or 2018 Purchase Plan.

	Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plan (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	10,378,288 (1)	$ 1.62 (2)	26,501,612 (3)
Equity compensation plans not approved by security holders	—	—	—
Total	10,378,288	$ 1.62	26,501,612

(1) Includes 3,129,900 shares subject to outstanding options under the 2016 Plan, 6,277,466 shares subject to restricted stock units, or RSUs, granted under the 2018 Plan and 970,922 shares subject to performance stock units, or PSUs, granted under the 2018 Plan at the target award amounts. Based on the extent to which the applicable performance measures are achieved, shares issued upon vesting of the outstanding PSUs may range from 0% - 150% of the target award amounts. Excludes restricted stock issued under the 2016 Plan, whether vested or unvested. As of December 31, 2018 , we did not have any purchase rights accruing under the 2018 Purchase Plan.

(2) RSUs and PSUs, which do not have an exercise price, are excluded in the calculation of weighted average exercise price.

(3) As of December 31, 2018 , an aggregate of (i) 22,751,612 shares of common stock were available for issuance under the 2018 Plan and (ii) 3,750,000 shares of common stock were available for issuance under the 2018 Purchase Plan. Our ability to grant any future equity awards under the 2016 Plan was terminated in October 2018. Outstanding equity awards granted under the 2016 Plan prior to October 2018 remain subject to the terms of the 2016 Plan.

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.*

Reports of Independent Registered Public Accounting Firm	F-2
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2. *Financial Statement Schedules.*

The following financial statement schedule 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	181082032	2.1	9/21/2018
3.1	Third Amended and Restated Certificate of Incorporation as currently in effect	10-Q	181203681	3.1	11/27/2018
3.2	Amended and Restated Bylaws as currently in effect	10-Q	181203681	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	181203681	4.1	11/27/2018
4.2	Registration Rights Agreement, dated as of February 5, 2016, by and among the registrant and certain stockholders named therein	S-1	181082032	4.3	9/21/2018

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
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	181082032	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	181082032	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	181082032	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	181082032	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	181082032	10.1.4	9/21/2018
10.2	Second Lien Credit Agreement, dated as of March 15, 2018, by and among SolarWinds Holdings I, Inc., SolarWinds Holdings, Inc., the other guarantors party thereto, Wilmington Trust, National Association, as administrative agent, and the other lenders party thereto	S-1	181082032	10.2	9/21/2018

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	181082032	10.3	9/21/2018
10.4	Form of Indemnification Agreement between the registrant and each of its directors and executive officers	S-1	181082032	10.4	9/21/2018
10.5#	SolarWinds Corporation Equity Plan, dated as of June 24, 2016, and forms of agreement thereunder	S-1	181082032	10.5	9/21/2018
10.6#	SolarWinds Corporation 2018 Equity Incentive Plan and forms of agreements thereunder	10-Q	181203681	10.1	11/27/2018
10.7*	SolarWinds Corporation 2018 Employee Stock Purchase Plan				
10.8#	Form of SolarWinds Corporation Bonus Plan	S-1	181082032	10.8	9/21/2018
10.9#	Second Amended and Restated Employment Agreement, dated as of September 30, 2016, between SolarWinds, Inc. and Kevin B. Thompson	S-1	181082032	10.9	9/21/2018
10.10#	Amended and Restated Employment Agreement, dated as of April 27, 2016, between SolarWinds Worldwide, LLC and J. Barton Kalsu	S-1	181082032	10.10	9/21/2018
10.11#	Employment Agreement, dated as of October 15, 2015, between SolarWinds Worldwide, LLC and David Gardiner	S-1	181082032	10.11	9/21/2018
10.11.1#	Amendment to Employment Agreement, dated as of April 27, 2016, between SolarWinds Worldwide, LLC and David Gardiner	S-1	181082032	10.11.1	9/21/2018
10.11.2#	Letter of Assignment (2017–2018), dated as of July 1, 2017, between SolarWinds Worldwide, LLC and David Gardiner	S-1	181082032	10.11.2	9/21/2018
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				

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
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 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
101.INS	XBRL Instance Document				
101.SCH	XBRL Taxonomy Extension Schema Document				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				

# Indicates management contract or compensatory plan or arrangement.

+ Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. SolarWinds Corporation agrees to furnish supplementally to the SEC a copy of any omitted schedule or exhibit upon request.

* 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 25, 2019	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/ Kevin B. Thompson **Kevin B. Thompson**	President and Chief Executive Officer and Director (Principal Executive Officer)	February 25, 2019
/s/ J. Barton Kalsu **J. Barton Kalsu**	Chief Financial Officer (Principal Financial and Accounting Officer)	February 25, 2019
/s/ Michael Bingle **Michael Bingle**	Director	February 25, 2019
/s/ William Bock **William Bock**	Director	February 25, 2019
/s/ Seth Boro **Seth Boro**	Director	February 25, 2019
/s/ Paul Cormier **Paul Cormier**	Director	February 25, 2019
/s/ Kenneth Y. Hao **Kenneth Y. Hao**	Director	February 25, 2019
/s/ Michael Hoffmann **Michael Hoffmann**	Director	February 25, 2019
/s/ Catherine Kinney **Catherine Kinney**	Director	February 25, 2019
/s/ James Lines **James Lines**	Director	February 25, 2019
/s/ Jason White **Jason White**	Director	February 25, 2019

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of SolarWinds Corporation:

In our opinion, the accompanying consolidated statements of operations, of comprehensive income (loss), of stockholders' equity and of cash flows for the period from January 1, 2016 through February 4, 2016 present fairly, in all material respects, the results of operations and cash flows of SolarWinds North America, Inc. and its subsidiaries (Predecessor, formerly SolarWinds, Inc., the "Company") for the period from January 1, 2016 through February 4, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audit. We conducted our audit of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

/s/PricewaterhouseCoopers LLP
Austin, Texas
June 1, 2018

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of SolarWinds Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of SolarWinds Corporation and its subsidiaries (Successor, formerly SolarWinds Parent, Inc., the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of operations, of comprehensive income (loss), of redeemable convertible class A common stock and stockholders' equity (deficit) and of cash flows for the years ended December 31, 2018 and 2017 and for the period from February 5, 2016 through December 31, 2016, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the years ended December 31, 2018 and 2017 and for the period from February 5, 2016 through December 31, 2016 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

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

/s/PricewaterhouseCoopers LLP
Austin, Texas
February 25, 2019

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

SolarWinds Corporation
(Successor, formerly SolarWinds Parent, Inc.)
Consolidated Balance Sheets
(In thousands, except share and per share information)

	December 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 382,620	$ 277,716
Accounts receivable, net of allowances of $3,196 and $2,065 as of December 31, 2018 and December 31, 2017, respectively	100,528	85,133
Income tax receivable	893	1,713
Prepaid and other current assets	16,267	24,331
Total current assets	500,308	388,893
Property and equipment, net	35,864	34,209
Deferred taxes	6,873	4,425
Goodwill	3,683,961	3,695,640
Intangible assets, net	956,261	1,194,499
Other assets, net	11,382	9,398
Total assets	$ 5,194,649	$ 5,327,064
Liabilities, redeemable convertible common stock and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	$ 9,742	$ 9,657
Accrued liabilities and other	52,055	39,593
Accrued interest payable	290	11,632
Income taxes payable	15,682	9,049
Current portion of deferred revenue	270,433	241,513
Current debt obligation	19,900	16,950
Total current liabilities	368,102	328,394
Long-term liabilities:		
Deferred revenue, net of current portion	25,699	20,278
Non-current deferred taxes	147,144	167,523
Other long-term liabilities	133,532	148,121
Long-term debt, net of current portion	1,904,072	2,245,622
Total liabilities	2,578,549	2,909,938
Commitments and contingencies (*Note 16*)		
Redeemable convertible Class A common stock, $0.001 par value: no shares authorized, issued or outstanding at December 31, 2018; 5,755,000 shares authorized and 2,661,030 shares issued and outstanding as of December 31, 2017	—	3,146,887
Stockholders' equity (deficit):		
Common stock, $0.001 par value: 1,000,000,000 shares authorized and 304,942,415 shares issued and outstanding as of December 31, 2018; 233,000,000 shares authorized and 100,734,056 shares issued and outstanding as of December 31, 2017	305	101
Preferred stock, $0.001 par value: 50,000,000 shares authorized and no shares issued and outstanding as of December 31, 2018; no shares authorized, issued and outstanding as of December 31, 2017	—	—
Additional paid-in capital	3,011,080	—
Accumulated other comprehensive income (loss)	17,043	75,294
Accumulated deficit	(412,328)	(805,156)
Total stockholders' equity (deficit)	2,616,100	(729,761)
Total liabilities, redeemable convertible common stock and stockholders' equity (deficit)	$ 5,194,649	$ 5,327,064

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

SolarWinds Corporation (Successor, formerly SolarWinds Parent, Inc.)
and SolarWinds North America, Inc. (Predecessor, formerly SolarWinds, Inc.)

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
Revenue:				
Subscription	$ 265,591	$ 213,754	$ 126,960	$ 6,551
Maintenance	402,938	357,630	145,234	29,500
Total recurring revenue	668,529	571,384	272,194	36,051
License	164,560	156,633	149,900	11,276
Total revenue	833,089	728,017	422,094	47,327
Cost of revenue:				
Cost of recurring revenue	70,744	60,698	46,238	9,551
Amortization of acquired technologies	175,991	171,033	147,517	2,186
Total cost of revenue	246,735	231,731	193,755	11,737
Gross profit	586,354	496,286	228,339	35,590
Operating expenses:				
Sales and marketing	227,468	205,631	165,355	47,064
Research and development	96,272	86,618	65,806	32,183
General and administrative	80,641	67,303	71,011	79,636
Amortization of acquired intangibles	66,788	67,080	58,553	917
Total operating expenses	471,169	426,632	360,725	159,800
Operating income (loss)	115,185	69,654	(132,386)	(124,210)
Other income (expense):				
Interest expense, net	(142,008)	(169,786)	(169,900)	(473)
Other income (expense), net	(94,887)	38,664	(56,959)	(284)
Total other income (expense)	(236,895)	(131,122)	(226,859)	(757)
Loss before income taxes	(121,710)	(61,468)	(359,245)	(124,967)
Income tax expense (benefit)	(19,644)	22,398	(96,651)	(53,156)
Net loss	$ (102,066)	$ (83,866)	$ (262,594)	$ (71,811)
Net income (loss) available to common stockholders	$ 364,635	$ (351,873)	$ (480,498)	$ (71,811)
Net income (loss) available to common stockholders per share:				
Basic earnings (loss) per share	$ 2.60	$ (3.50)	$ (4.98)	$ (1.00)
Diluted earnings (loss) per share	$ 2.56	$ (3.50)	$ (4.98)	$ (1.00)
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	140,301	100,433	96,465	71,989
Shares used in computation of diluted earnings (loss) per share	142,541	100,433	96,465	71,989

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

**SolarWinds Corporation (Successor, formerly SolarWinds Parent, Inc.)
and SolarWinds North America (Predecessor, formerly SolarWinds, Inc.)**

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
Net loss	$ (102,066)	$ (83,866)	$ (262,594)	$ (71,811)
Other comprehensive income (loss):				
Foreign currency translation adjustment	(58,251)	141,341	(66,047)	3,835
Unrealized gains on investments, net of income tax expense $15 for the period ended February 4, 2016	—	—	—	27
Other comprehensive income (loss)	(58,251)	141,341	(66,047)	3,862
Comprehensive income (loss)	$ (160,317)	$ 57,475	$ (328,641)	$ (67,949)

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

SolarWinds North America, Inc. (Predecessor, formerly SolarWinds, Inc.)

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

Predecessor:	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Earnings	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2015	71,884	$ 72	$ 135,872	$ (28,231)	$ 415,548	$ 523,261
Comprehensive income:						
Foreign currency translation adjustment	—	—	—	3,835	—	3,835
Unrealized gains on investments, net of tax	—	—	—	27	—	27
Net loss	—	—	—	—	(71,811)	(71,811)
Comprehensive loss						(67,949)
Exercise of stock options	50	—	1,311	—	—	1,311
Restricted stock units issued, net of shares withheld for taxes	107	—	(2,333)	—	—	(2,333)
Stock-based compensation	—	—	87,799	—	—	87,799
Balance at February 4, 2016	72,041	$ 72	$ 222,649	$ (24,369)	$ 343,737	$ 542,089

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

SolarWinds Corporation (Successor, formerly SolarWinds Parent, Inc.)

Consolidated Statements of Redeemable Convertible Class A Common Stock and Stockholders' Equity (Deficit)
(In thousands, except per share information)

	Redeemable Convertible Class A Common Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Successor:								
Balance at February 5, 2016	—	$ —	—	$ —	$ —	$ —	$ —	$ —
Foreign currency translation adjustment	—	—	—	—	—	(66,047)	—	(66,047)
Net loss	—	—	—	—	—	—	(262,594)	(262,594)
Comprehensive loss						—	—	(328,641)
Issuance of stock	2,662	2,661,600	99,356	99	26,786	—	—	26,885
Accumulating dividends	—	217,904			(26,803)	—	(191,101)	(217,904)
Stock-based compensation	—	—			17	—	—	17
Balance at December 31, 2016	2,662	2,879,504	99,356	99	—	(66,047)	(453,695)	(519,643)
Foreign currency translation adjustment	—	—	—	—	—	141,341	—	141,341
Net loss	—	—	—	—	—	—	(83,866)	(83,866)
Comprehensive income								57,475
Exercise of stock options	—	—	5	—	1	—	—	1
Issuance of stock	—	74	1,468	2	397	—	—	399
Repurchase of stock	(1)	(697)	(95)	—	(67)	—	—	(67)
Accumulating dividends	—	268,006	—	—	(411)	—	(267,595)	(268,006)
Stock-based compensation	—	—	—	—	80	—	—	80
Balance at December 31, 2017	2,661	3,146,887	100,734	101	—	75,294	(805,156)	(729,761)
Foreign currency translation adjustment	—	—	—	—	—	(58,251)	—	(58,251)
Net loss	—	—	—	—	—	—	(102,066)	(102,066)
Comprehensive loss								(160,317)
Issuance of stock upon initial public offering, net of offering costs	—	—	25,000	25	353,501	—	—	353,526
Exercise of stock options	—	—	46	—	16	—	—	16
Issuance of stock	—	—	1,408	1	405	—	—	406
Repurchase of stock	—	(17)	(57)	—	(473)	—	—	(473)
Accumulating dividends	—	231,549	—	—	(15,196)	—	(216,353)	(231,549)
Conversion of Class A shares and accumulated dividends to common stock upon initial public offering	(2,661)	(3,378,419)	177,811	178	2,666,994	—	711,247	3,378,419
Stock-based compensation	—	—	—	—	5,833	—	—	5,833
Balance at December 31, 2018	—	$ —	304,942	$ 305	$ 3,011,080	$ 17,043	$ (412,328)	$ 2,616,100

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

SolarWinds Corporation (Successor, formerly SolarWinds Parent, Inc.)
and SolarWinds North America, Inc. (Predecessor, formerly SolarWinds, Inc.)

Consolidated Statements of Cash Flows
(In thousands)

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
Cash flows from operating activities				
Net loss	$ (102,066)	$ (83,866)	$ (262,594)	$ (71,811)
Adjustments to reconcile net loss to net cash provided by operating activities:				
Depreciation and amortization	258,362	250,876	215,325	3,908
Provision for doubtful accounts	2,498	2,489	1,713	64
Stock-based compensation expense	5,833	80	17	87,763
Amortization of debt issuance costs	11,675	18,859	18,766	12
Loss on extinguishment of debt	80,137	18,559	22,767	—
Deferred taxes	(22,101)	(101,522)	(108,735)	(17,864)
(Gain) loss on foreign currency exchange rates	13,410	(54,875)	33,088	(692)
Other non-cash expenses (benefits)	3,443	(3,754)	889	13
Changes in operating assets and liabilities, net of assets acquired and liabilities assumed in business combinations:				
Accounts receivable	(18,010)	(2,358)	(15,574)	2,181
Income taxes receivable	707	35,005	(498)	(34,534)
Prepaid and other current assets	(4,497)	6,184	(2,387)	(1,829)
Accounts payable	(28)	293	(16,372)	10,668
Accrued liabilities and other	9,776	(7,544)	(27,151)	43,894
Accrued interest payable	(11,342)	609	11,023	362
Income taxes payable	(10,673)	119,594	4,925	(568)
Deferred revenue	35,507	34,043	186,519	7,536
Other long-term liabilities	1,511	21	(546)	(88)
Net cash provided by operating activities	254,142	232,693	61,175	29,015
Cash flows from investing activities				
Purchases of investments	—	—	(2,000)	—
Maturities of investments	—	2,000	—	22,839
Purchases of property and equipment	(15,945)	(7,594)	(6,946)	(809)
Purchases of intangible assets	(2,687)	(4,786)	(3,198)	(316)
Acquisitions, net of cash acquired	(60,578)	(23,999)	(507,531)	—
Acquisition of SolarWinds, Inc., net of cash acquired	—	—	(4,335,086)	—
Proceeds from sale of cost method investment and other	11,217	—	—	—
Net cash provided by (used in) investing activities	(67,993)	(34,379)	(4,854,761)	21,714

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SolarWinds Corporation (Successor, formerly SolarWinds Parent, Inc.)
and SolarWinds North America, Inc. (Predecessor, formerly SolarWinds, Inc.)

Consolidated Statements of Cash Flows
(In thousands)

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
Cash flows from financing activities				
Proceeds from our initial public offering, net of underwriting discounts	357,188	—	—	—
Proceeds from issuance of common stock and incentive restricted stock	1,723	313	2,679,935	—
Repurchase of common stock and incentive restricted stock	(578)	(930)	(4)	(2,332)
Exercise of stock options	16	1	—	1,311
Premium paid on debt extinguishment	(36,900)	—	—	—
Proceeds from credit agreement	626,950	3,500	2,724,516	—
Repayments of borrowings from credit agreement	(1,014,900)	(36,950)	(341,215)	—
Payment of debt issuance costs	(5,561)	(1,288)	(164,942)	—
Payment for deferred offering costs	(3,662)	—	—	—
Net cash provided by (used in) financing activities	(75,724)	(35,354)	4,898,290	(1,021)
Effect of exchange rate changes on cash and cash equivalents	(5,521)	13,113	(3,061)	3,086
Net increase in cash and cash equivalents	104,904	176,073	101,643	52,794
Cash and cash equivalents				
Beginning of period	277,716	101,643	—	196,913
End of period	$ 382,620	$ 277,716	$ 101,643	$ 249,707
Supplemental disclosure of cash flow information				
Cash paid for interest	$ 142,944	$ 147,106	$ 140,719	$ 238
Cash paid (received) for income taxes	$ 8,950	$ (32,069)	$ 6,877	$ 14
Non-cash investing and financing transactions				
Non-cash equity contribution by SolarWinds, Inc.’s management at Take Private	$ —	$ —	$ 9,429	$ —
Conversion of redeemable convertible Class A common stock and accumulated dividends to common stock	$ 3,378,419	$ —	$ —	$ —

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

SolarWinds Corporation (Successor, formerly SolarWinds Parent, Inc.)
and SolarWinds North America, Inc. (Predecessor, formerly SolarWinds, Inc.)
Notes to Consolidated Financial Statements

1. Organization and Nature of Operations

SolarWinds Corporation and its subsidiaries ("Company" or "Successor") is a leading provider of information technology, or IT, infrastructure management software. References to "we," "us" and "our" refer to Company or Predecessor (as defined below) as the context requires. Our products give organizations worldwide, regardless of type, size or IT infrastructure complexity, the power to monitor and manage the performance of their IT environments, whether on-premise, in the cloud, or in hybrid infrastructure models. Our approach, which we refer to as the SolarWinds Model, combines powerful, scalable, affordable, easy to use products with high-velocity, low-touch sales. We've built our business to enable the technology professionals who use our products to manage "all things IT." Our range of customers has expanded over time from network and systems engineers to a broad set of technology professionals, such as database administrators, storage administrators, web operators and DevOps professionals, as well as managed service providers, or MSPs. Our SolarWinds Model enables us to sell our products for use in organizations ranging in size from very small businesses to large enterprises.

SolarWinds Corporation was incorporated in the State of Delaware in 2015 under the name Project Aurora Parent, Inc. It changed its name to SolarWinds Parent, Inc. in May 2016, and in May 2018 changed its name to SolarWinds Corporation.

Take Private

In February 2016, we were acquired by affiliates of investment firms Silver Lake and Thoma Bravo, or the Sponsors, to complete a take private transaction, or the Take Private, of SolarWinds, Inc. In May 2018, SolarWinds, Inc. changed its name to SolarWinds North America, Inc., or Predecessor. Following the Take Private, we pursued our initiatives in the cloud and MSP markets, growing our product offerings and market opportunity through organic product development and targeted acquisitions while at the same time continuing to invest in our on-premise IT management product portfolio. The purchase accounting adjustments related to the Take Private were reflected in our consolidated financial statements for the period ended December 31, 2016. The financial statements presented as of and for the years ended December 31, 2018 and 2017 and for the period from February 5, 2016 to December 31, 2016 represent those of the Successor. The financial statements presented for the period January 1, 2016 to February 4, 2016 represent those of Predecessor. See further information regarding the purchase accounting adjustments of the Take Private in *Note 3. Take Private* .

Initial Public Offering

In October 2018, we completed our initial public offering, or IPO, in which we sold and issued 25,000,000 shares of our common stock at an issue price of $15.00 per share. We raised a total of $375.0 million in gross proceeds from the offering, or approximately $353.0 million in net proceeds after deducting underwriting discounts and commissions of $17.8 million and offering-related expenses of approximately $4.2 million . A portion of the net proceeds from the offering were used to repay the $315.0 million in borrowings outstanding under our Second Lien Term Loan (as defined below).

Upon the closing of our IPO, all shares of Class A Common Stock that were outstanding immediately prior to the closing of the offering converted into shares of common stock at a conversion price of $19.00 per share as in accordance with the terms of our certificate of incorporation, as amended. In addition, we converted the accrued and unpaid dividends on the Class A Common Stock into shares of common stock equal to the result of the accrued and unpaid dividends on each share of Class A Common Stock divided by the conversion price of $19.00 per share. See *Note 10. Redeemable Convertible Class A Common Stock* and *Note 11. Stockholders' Equity (Deficit) and Stock-Based Compensation* for additional details.

2. Summary of Significant Accounting Policies

Basis of Consolidation

The accompanying consolidated financial statements of Successor include the accounts of SolarWinds Corporation and the accounts of its wholly owned subsidiaries for the years ended December 31, 2018 and 2017 and the period from February 5, 2016 through December 31, 2016. The accompanying consolidated financial statements of Predecessor include the accounts of SolarWinds North America, Inc. and the accounts of its wholly owned subsidiaries through February 4, 2016. We have eliminated all intercompany balances and transactions.

Use of Estimates

The preparation of financial statements in conformity with 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, or 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 (deficit). 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, 2018 and 2017 . 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.

We recorded a net transaction loss related to the remeasurement of monetary assets and liabilities of $14.9 million and a net transaction gain of $54.0 million within our consolidated statements of operations for the years ended December 31, 2018 and 2017 , respectively, primarily related to various intercompany loans. We recorded a net transaction loss related to the remeasurement of monetary assets and liabilities of $34.5 million within our consolidated statement of operations for the Successor period from February 5, 2016 through December 31, 2016, primarily related to various intercompany loans and borrowings under our Euro term loan. Gains and losses from remeasurement of monetary assets and liabilities were no t material for the Predecessor period from January 1, 2016 through February 4, 2016.

As of July 1, 2018, we changed our assertion regarding the planned settlement of a certain intercompany loan. We evaluated our investment strategy in light of our global treasury plans and the new Tax Act (as defined below) and have determined there is no need to settle the principal related to the loan. The intercompany loan has been designated as long-term based on the assertion that settlement is not planned or anticipated in the foreseeable future. Therefore, beginning on July 1, 2018, the foreign currency transaction gains and losses resulting from the remeasurement of this long-term intercompany loan denominated in a currency other than the subsidiary's functional currency are recognized as a component of accumulated other comprehensive income (loss) upon consolidation. In the year ended December 31, 2018 , a foreign currency translation adjustment of $10.4 million was recognized as a component of accumulated other comprehensive income (loss) related to this long-term intercompany loan.

Recent Accounting Pronouncements Not Yet Adopted

Under the Jumpstart our Business Startups Act, or the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to non-public companies. We intend to take advantage of the longer phase-in periods for the adoption of new or revised financial accounting standards permitted under the JOBS Act until we are no longer an emerging growth company.

In May 2014, FASB issued *"Revenue from Contracts with Customers,"* which replaced all existing revenue guidance, including prescriptive industry-specific guidance. This standard's core principle is that an entity will recognize revenue when it transfers 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. Entities will need to apply more judgment and make more estimates than under the previous guidance. In July 2015, FASB deferred the effective date for all entities by one year, making the guidance for non-public companies effective for annual reporting periods beginning after December 15, 2018. Early adoption is permitted to the original effective date of December 15, 2016. The standard permits the use of either a full-retrospective or a modified-retrospective transition method. We will adopt the new standard effective first quarter 2019 using the modified-retrospective method for adoption.

The most significantly impacted areas are the following:

- *License and Recurring Revenue.* We expect that adoption of the new standard will result in changes to the classification and timing of our revenue recognition. Under the new guidance, the requirement to establish VSOE to recognize license revenue separately from the other elements is eliminated. This change is expected to impact the allocation of the transaction price and timing of our revenue recognition between deliverables, or performance obligations, within an arrangement. In addition, we will recognize time-based license revenue upon the transfer of the license and the associated maintenance revenue over the contract period under the new standard instead of recognizing both the license and maintenance revenue ratably over the contract period. We expect the overall adoption impact to total revenue to be immaterial, though we do expect some changes to the timing and classification between license and recurring revenue. Additionally, some historical deferred revenue, primarily from arrangements involving time-based licenses, will never be recognized as revenue and instead will be a cumulative effect adjustment within accumulated deficit. We expect a reduction of approximately $2.8 million to the deferred revenue balance as a cumulative effect adjustment as of January 1, 2019.

- *Contract Acquisition Costs.* We expense all sales commissions as incurred under current guidance. The new guidance requires the deferral and amortization of certain incremental costs incurred to obtain a contract. This guidance will require us to capitalize and amortize certain sales commission costs over the remaining contractual term or over an expected period of benefit, which we have determined to be approximately six years . As part of the transition to the new guidance, we expect to recognize a contract asset of approximately $5.2 million as a cumulative effect adjustment as of January 1, 2019.

- *Other Items.* The impact of the adoption of the new standard on income taxes will result in an increase of deferred income tax liabilities of approximately $1.7 million as of January 1, 2019. We do not expect that the adoption of this standard will impact our operating cash flows.

We do not expect the changes described above to have a material impact on our quarterly or annual consolidated financial statements, however the exact impact of the new standard will be dependent on facts and circumstances that could vary from quarter to quarter. The quantitative amounts provided above are estimates of the expected effects of our adoption of the new standard. These amounts represent our best estimates of the effects of adopting the new standard at the time of the preparation of this Annual Report on Form 10-K. The actual impact of the new revenue standard is subject to change from these estimates and such change may be significant.

In February 2016, FASB issued an accounting standard to provide updated guidance requiring the recognition of all lease assets and liabilities on the balance sheet. The accounting standard required the use of a modified retrospective transition method. In July 2018, FASB issued additional guidance that provides entities with an optional transition method in which an entity can apply the new standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance retained earnings in the period of adoption. The updated accounting guidance is effective for non-public companies for fiscal years beginning after December 15, 2019 and interim periods beginning the following year. Early adoption is permitted and the standard provides for certain practical expedients. We expect to adopt the updated guidance in fiscal year 2020. Our evaluation of the new standard will extend into future periods and we will update our disclosures, including the expected impacts of the new standard, as we progress towards the required adoption date.

In January 2017, FASB issued an accounting standard to simplify the accounting for goodwill impairment. The new guidance removes step two of the two-step quantitative goodwill impairment test, which requires a hypothetical purchase price allocation. The updated guidance is effective for non-public companies for fiscal years beginning after December 15, 2021 and may be adopted early for any interim or annual goodwill impairment tests performed after January 1, 2017. We expect to adopt the updated guidance in fiscal year 2022. We do not believe that this standard will have a material impact on our consolidated financial statements.

Acquisitions

We account for acquired businesses, including the Take Private, using the acquisition method of accounting, which requires that the assets acquired, liabilities assumed, contractual contingencies and contingent consideration be recorded at the date of acquisition at their respective fair values. Goodwill represents the excess of the purchase price, including any contingent consideration, over the fair value of the net assets acquired. Goodwill is allocated to our reporting units expected to benefit from the business combination based on the relative fair value at the acquisition date. It further requires acquisition related costs to be recognized separately from the acquisition and expensed as incurred, restructuring costs to be expensed in periods subsequent to the acquisition date and changes in accounting for deferred tax asset valuation allowances and acquired income tax uncertainties

after the measurement period to impact the provision for income taxes. The acquired developed product technologies recorded for each acquisition were feasible at the date of acquisition as they were being actively marketed and sold by the acquired company at the acquisition date. In addition to the acquired developed product technologies, we also recorded intangible assets for the acquired companies' customer relationships, customer backlog, trademarks and tradenames, in process research and development and certain non-competition covenants. We include the operating results of acquisitions in our consolidated financial statements from the effective date of the acquisitions. Acquisition related costs 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. Such valuations and useful life determinations require us to make significant estimates and assumptions. These 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 product technology 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 net cash flow method or straight-line method over their estimated economic lives, which are generally three 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. We record acquired in process research and development as indefinite-lived intangible assets. On completion of the related development projects, the in process research and development assets are reclassified to developed technology and amortized over their estimated economic lives.

Impairment of Goodwill, Intangible Assets and Long-lived Assets

Goodwill

We test goodwill for impairment annually, in the fourth quarter, or more frequently if impairment indicators arise. Goodwill is tested for impairment at the reporting unit level using a fair value approach. 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. 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 by comparing the fair value of a reporting unit with its carrying amount. If the carrying value exceeds the fair value, we measure the amount of impairment loss, if any, by comparing the implied fair value of the reporting unit goodwill with its carrying amount, the "Step 2" analysis. In 2018 and 2017 , we performed a qualitative, "Step 0," assessment for our reporting units and determined there were no indicators of impairment. No impairment charges have been required to date.

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 comparing the fair value of indefinite lived intangible assets 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 December 31, 2018 and 2017 , we performed a qualitative, "Step 0," 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 December 31, 2018 and 2017 , there were no indicators that our long-lived assets were impaired.

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.

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 doubtful accounts. We maintain an allowance for doubtful accounts 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 doubtful accounts being recognized in the period in which the change occurs. We have historically had insignificant write-offs related to bad debts.

Deferred Offering Costs

Deferred offering costs, primarily consisting of legal, accounting, printer, and other direct fees and costs, related to our initial public offering were capitalized. The deferred offering costs of $3.7 million were offset against proceeds from our initial public offering during the year ended December 31, 2018. As of December 31, 2017 , we had no t yet capitalized any offering costs in the consolidated balance sheet.

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. Software development costs incurred subsequent to establishing technological feasibility

through the general release of the software products are capitalized. Our new software 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 were insignificant for the years ended December 31, 2018 and 2017 , the Successor period from February 5, 2016 to December 31, 2016, and the Predecessor period from January 1, 2016 to February 4, 2016.

Internal-Use Software and Website Development Costs

We capitalize costs related to developing new functionality for our suite of products that are hosted and accessed by our customers on a subscription basis. 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 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 and we did not incur any significant website development costs during the periods presented.

We had $5.0 million and $4.7 million of internal-use software, net capitalized as of December 31, 2018 and 2017 , respectively. Amortization expense of internal-use software and website development costs was $2.5 million , $1.1 million and $0.2 million for the years ended December 31, 2018 and 2017 , and the Successor period from February 5, 2016 to December 31, 2016, respectively. Amortization expense of internal-use software and website development costs was insignificant for the Predecessor period from January 1, 2016 to February 4, 2016.

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 $11.7 million , $18.9 million and $18.8 million for the years ended December 31, 2018 and 2017 , and the Successor period from February 5, 2016 to December 31, 2016, respectively. Amortization of debt issuance costs included in interest expense was insignificant for the period from January 1, 2016 to February 4, 2016. See *Note 9. 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. 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	Accumulated Other Comprehensive Income (Loss)
	(in thousands)	
Balance at December 31, 2016	$ (66,047)	$ (66,047)
Other comprehensive gain (loss) before reclassification	141,341	141,341
Amount reclassified from accumulated other comprehensive income (loss)	—	—
Net current period other comprehensive income (loss)	141,341	141,341
Balance at December 31, 2017	75,294	75,294
Other comprehensive gain (loss) before reclassification	(58,251)	(58,251)
Amount reclassified from accumulated other comprehensive income (loss)	—	—
Net current period other comprehensive income (loss)	(58,251)	(58,251)
Balance at December 31, 2018	$ 17,043	$ 17,043

Revenue Recognition

We 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 perpetual license products. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectability is reasonably assured. Our return policy generally does not allow our customers to return software products.

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 an arrangement. We consider delivery to have occurred and recognize revenue when risk of loss transfers to the customer, reseller or distributor 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. 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.

We sell our products through our direct sales force 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.

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

- *Subscription Revenue* . We primarily derive subscription revenue from fees received for subscriptions to our software-as-a-service, or SaaS, products and our time-based license arrangements. We generally invoice subscription agreements monthly based on usage or monthly in advance over the subscription period. Subscription revenue is generally recognized ratably over the subscription term when all revenue recognition criteria have been met. We typically sell our subscription products separately from our perpetual license offerings. Our subscription revenue includes our cloud management and MSP products.

- *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. We recognize maintenance revenue ratably on a daily basis over the contract period. Customers with maintenance agreements are entitled to receive unspecified upgrades or enhancements to new versions of their software products on a when-and-if-available basis.

License Revenue . We use the residual method to recognize revenue when a license agreement includes one or more elements to be delivered and vendor-specific objective evidence, or VSOE, of fair value for all undelivered elements exists. Because our software is generally sold with maintenance services, we calculate the amount of revenue allocated to the software license by

determining the fair value of the maintenance services and subtracting it from the total invoice or contract amount. We establish VSOE of the fair value of maintenance services by our standard maintenance renewal price list since we generally charge list price for our maintenance renewal agreements. If evidence of the fair value of one or more undelivered elements does not exist, all revenue is generally deferred and recognized when delivery of those elements occurs or when fair value can be established. When the undelivered element for which we do not have VSOE of fair value is maintenance services, revenue for the entire arrangement is recognized ratably over the contract period.

Deferred Revenue

Deferred revenue primarily consists of billings or payments received in advance of revenue recognition from maintenance services associated with our perpetual license products. We generally bill maintenance agreements 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 to be paid under maintenance agreements as deferred revenue and recognize these amounts ratably on a daily basis over the term of the maintenance 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.

Cost of Revenue

Cost of recurring revenue. Cost of recurring revenue 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. Royalty fees and hosting and server fees related to our cloud management and MSP products 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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Amortization of acquired license technologies	$ 144,857	$ 142,417	$ 124,259	$ 1,455
Amortization of acquired subscription technologies	31,134	28,616	23,258	731
Total amortization of acquired technologies	$ 175,991	$ 171,033	$ 147,517	$ 2,186

Advertising

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Advertising expense	$ 38,477	$ 38,213	$ 28,655	$ 2,293

Leases

We lease facilities worldwide and certain equipment under non-cancellable lease agreements. The terms of some of our lease agreements provide for rental payments on a graduated basis. We recognize rent expense on a straight-line basis over the lease period and accrue rent expense incurred but not paid. Cash or lease incentives, or tenant allowances, received pursuant to certain

leases are recognized on a straight-line basis as a reduction to rent over the lease term. The unamortized portion of tenant allowances is included in accrued liabilities and other and other long-term liabilities.

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. At December 31, 2018 and 2017 , we had accrued interest and penalties related to unrecognized tax benefits of approximately $4.1 million and $3.0 million , respectively.

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 our latest forecast of future taxable income, available tax planning strategies that could be implemented, reversal of taxable temporary differences and carryback potential to realize the net deferred tax assets. As of December 31, 2018 and 2017 , we have recorded a valuation allowance of $1.8 million . The valuation allowance is all related to the deferred tax assets of a Canadian subsidiary.

On December 22, 2017, the Tax Cuts and Jobs Act, or the Tax Act, was enacted into law which contains several key tax provisions that affected us, including a one-time mandatory transition tax on accumulated foreign earnings and a reduction of the corporate income tax rate to 21% effective January 1, 2018, among others. We were required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax, re-measuring our U.S. deferred tax assets and liabilities as well as reassessing the net realization of our deferred tax assets and liabilities. In response to the Tax Act, the SEC staff issued *Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (SAB 118)* , which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Due to the timing of the enactment and the complexity involved in applying the provisions of the Tax Act, we made reasonable estimates of the effects and recorded provisional amounts in our consolidated financial statements for the year ended December 31, 2017. In the fourth quarter of 2018, we completed our analysis to determine the effect of the Tax Act and recorded immaterial adjustments as of December 31, 2018. For more information regarding the Tax Act impacts, see *Note 15. Income Taxes* .

Effective January 1, 2018, we recognized the tax impact of including certain foreign earnings in U.S. taxable income as a period cost. We have not recognized deferred income taxes for local country income and withholding taxes that could be incurred on distributions of certain foreign earnings or for outside basis differences in our subsidiaries, because we plan to indefinitely reinvest such earnings and basis differences.

Stock-Based Compensation

We have granted our employees and directors stock-based incentive awards. These awards are in the form of stock options and restricted stock units for Predecessor and stock options, restricted stock and restricted stock units for common stock shares of the Successor. All Predecessor awards were cancelled on the date of the Take Private. 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 stock option awards is estimated using a Black-Scholes valuation model. The fair value of restricted stock unit awards and restricted stock 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. Our stock awards vest on service-based or performance-based vesting conditions. 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 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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016*
Expected dividend yield	—%	—%	—%	—%
Volatility	40.2%	41.9%	43.1%	—%
Risk-free rate of return	2.6 - 2.9%	1.9 - 2.2%	1.3 - 2.3%	—
Expected life	6.34	6.38	6.50	—

* There were no grants of stock options made in the Predecessor period from January 1, 2016 through February 4, 2016.

We have not paid and do not anticipate paying 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 for the Successor periods. We based the risk-free rate of return on the average U.S. treasury yield curve for five- and seven-year 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. For all awards, we granted employees stock awards at exercise prices equal to the fair value of the underlying common stock on the date the award was approved. 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 (Deficit) 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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Impact to income (loss) before income taxes due to stock-based compensation	$ 5,833	$ 80	$ 17	$ 87,763
Income tax benefit related to stock-based compensation	1,054	—	—	22,981

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. 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. Redeemable convertible Class A Common Stock was not included in the basic or diluted net income (loss) per share calculations for the periods it was outstanding as it was contingently convertible upon a future event. Net income (loss) available to common stockholders is defined as net loss, less the accretion of dividends on our redeemable convertible Class A Common Stock plus the gain on conversion of our redeemable convertible Class A Common Stock at our IPO. 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.

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. Diluted net loss per share for the year ended December 31, 2017 , the Successor period from February 5, 2016 through December 31, 2016 and the Predecessor period from January 1, 2016 through February 4, 2016 excluded common stock equivalents because their inclusion would be anti-dilutive, or would decrease the reported loss per share.

Refer to *Note 12. Net Income (Loss) Per Share* for additional information regarding the computation of net income (loss) per share and *Note 10. Redeemable Convertible Class A Common Stock* and *Note 11. Stockholders' Equity (Deficit) and Stock-Based Compensation* for additional information regarding our common stock and the conversion of our Redeemable Class A Common Stock at the IPO in October 2018.

Concentrations of Risks

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents 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,	
	2018	2017
	(in thousands)	
Demand deposit accounts	$ 265,520	$ 210,616
Money market funds	117,100	67,100
Total cash and cash equivalents	$ 382,620	$ 277,716

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 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 strive 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. For the years ended December 31, 2018 and 2017 , the period from February 5, 2016 through December 31, 2016 and the period from January 1, 2016 through February 4, 2016 no distributor, reseller or direct customer represented a significant concentration of our revenue.

At December 31, 2018 and 2017 , no distributor, reseller or direct customer represented a significant concentration 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. Take Private

In February 2016, as a result of the Take Private, a change in control of the Predecessor occurred and the Predecessor became a wholly-owned subsidiary of Successor. The total amount of funds necessary to complete the Take Private and the related transactions was approximately $4.6 billion . The purchase price included funds paid of $4.3 billion for outstanding common stock of Predecessor, $173.1 million for the settlement of certain stock-based awards outstanding, $90.0 million for Predecessor debt outstanding and the fair value of $9.4 million related to the non-cash equity contribution by Predecessor's management. The purchase price was funded by equity financing from affiliates of the Sponsors and other co-investors of approximately $2.5 billion , debt financing from Goldman, Sachs & Co., certain affiliates of the foregoing and other lenders of approximately $2.0 billion and our cash on hand. The purchase price paid in connection with the Take Private was allocated to the acquired assets and assumed liabilities at fair value on the date of the acquisition. Goodwill for the Take Private is no t deductible for tax purposes.

We incurred Take Private transaction costs of $1.2 million , $2.5 million and $133.1 million for the year ended December 31, 2017, the Successor period from February 5, 2016 to December 31, 2016 and the Predecessor period from January 1, 2016 to February 4, 2016, respectively, which are primarily included in general and administrative expenses. These costs primarily relate to accounting, legal, advisory and other professional fees. The costs for the Predecessor period from January 1, 2016 to February 4,

2016 also includes $87.5 million of stock-based compensation expense, employer-paid payroll taxes and other costs related to the accelerated vesting of the Predecessor stock options and certain restricted stock units.

The following table summarizes the consideration paid and the amounts recognized for the assets acquired and liabilities assumed:

	Total Fair Value
	(in thousands)
Current assets, including cash acquired of $248.3 million	$ 351,721
Property and equipment	35,255
Other assets	12,964
Identifiable intangible assets	1,495,400
Goodwill	3,212,255
Current liabilities	(87,459)
Deferred tax liabilities	(366,454)
Deferred revenue	(31,813)
Other long-term liabilities	(28,993)
Total consideration	$ 4,592,876

The following table summarizes the fair value of the acquired identifiable intangible assets and weighted-average useful life:

	Fair Value	Weighted-average useful life
	(in thousands)	(in years)
Developed product technologies	$ 906,200	6
Customer relationships	450,100	10
Tradenames - indefinite-lived	82,300	—
In process research and development	48,300	—
Customer backlog	6,200	2
Trademarks	2,300	1
Total identifiable intangible assets	$ 1,495,400	

4. Acquisitions

2018 Acquisitions

In the year ended December 31, 2018 , we completed acquisitions for a combined purchase price of approximately $62.9 million in cash, including $2.4 million of cash acquired. The acquisitions were funded with available cash on hand. We incurred $1.2 million in acquisition related costs, which are included in general and administrative expense for the year ended December 31, 2018 . Goodwill for these acquisitions is no t deductible for tax purposes.

The initial determination of the fair value of the assets acquired and liabilities assumed is based on a preliminary valuation and the estimates and assumptions for these items are subject to change as we obtain additional information during the measurement period. Subsequent changes to the purchase price or other fair value adjustments determined during the measurement period will be recorded as an adjustment to goodwill. The measurement period adjustments recognized during the period were immaterial and primarily related to working capital adjustments. We may have additional measurement period adjustments as we finalize the fair value of certain assets acquired and liabilities assumed.

The amounts of revenue and net loss related to these acquisitions included in our consolidated financial statements from the effective date of the respective acquisitions are insignificant for the year ended December 31, 2018 . Pro forma information for these acquisitions have not been provided because the impact of the historical financials on our revenue, net loss and net income (loss) per share is not material. We recognize revenue on the acquired products in accordance with our revenue recognition policy as described above in *Note 2. Summary of Significant Accounting Policies* .

The following table summarizes the consideration paid and the amounts recognized for the assets acquired and liabilities assumed for our acquisitions completed in the year ended December 31, 2018 :

	Total Fair Value
	(in thousands)
Current assets, including cash acquired	$ 4,821
Deferred tax asset	1,550
Fixed assets	1,352
Identifiable intangible assets	18,412
Goodwill	43,746
Current liabilities	(3,331)
Deferred tax liabilities	(666)
Deferred revenue	(2,944)
Total consideration	$ 62,940

The following table summarizes the fair value of the acquired identifiable intangible assets and weighted-average useful life:

	Fair Value	Weighted-average useful life
	(in thousands)	**(in years)**
Developed product technologies	$ 13,317	5
Customer relationships	4,805	4
Trademarks	290	3
Total identifiable intangible assets	$ 18,412	

2016 Acquisition - Successor

LOGICnow Acquisition

In May 2016, we acquired LOGICnow Acquisition Company B.V.'s share capital and subsidiaries and LOGICnow Management, LLC, or LOGICnow, for approximately $499.5 million in cash, including $6.9 million of cash acquired. LOGICnow provides integrated cloud-based IT Service Management solutions focused primarily on the MSP market. The acquisition was funded with $190.0 million in additional equity financing from the Sponsors, $253.8 million of net additional debt borrowings and cash on hand. We incurred $10.1 million in acquisition related costs, which are included in general and administrative expense for the Successor period of February 5, 2016 through December 31, 2016. Goodwill for this acquisition is no t deductible for tax purposes.

The following table summarizes the consideration paid and the amounts recognized for the assets acquired and liabilities assumed:

	Total Fair Value
	(in thousands)
Current assets, including cash acquired	$ 25,969
Property and equipment and other assets	5,848
Identifiable intangible assets	119,300
Goodwill	374,086
Current liabilities	(14,785)
Deferred tax liabilities	(8,401)
Deferred revenue	(2,548)
Total consideration	$ 499,469

The following table summarizes the fair value of the acquired identifiable intangible assets and weighted-average useful life:

	Fair Value	Weighted-average useful life
	(in thousands)	(in years)
Developed product technologies	$ 31,100	4
Customer relationships	87,000	5
Trademarks	1,200	1
Total identifiable intangible assets	$ 119,300	

We estimated the amounts of revenue and net loss related to the LOGICnow acquisition included in our consolidated financial statements from the effective date of the acquisition for the Successor period ended December 31, 2016 to be $57.5 million and $10.7 million , respectively. We recognize revenue on the acquired products in accordance with our revenue recognition policy as described above in *Note 2. Summary of Significant Accounting Policies* .

The following table presents our unaudited pro forma revenue and net loss for the year ended December 31, 2016 as if the LOGICnow acquisition had occurred on January 1, 2015. The pro forma financial information illustrates the measurable effects of a particular transaction, while excluding effects that rely on highly judgmental estimates of how operating decisions may or may not have changed as a result of that transaction. Accordingly, we adjusted the pro forma results for quantifiable items such as the amortization of acquired intangible assets, stock-based compensation, acquisition costs and the estimated income tax provision of the pro forma combined results. The acquisition pro forma results were not adjusted for post-acquisition decisions made by management such as changes in the product offerings, pricing and packaging of the products. We prepared the pro forma financial information for the combined entities for comparative purposes only, and it is not indicative of what actual results would have been if the acquisition had taken place on January 1, 2015, or of any future results.

	Year ended December 31,
	2016
(in thousands)	(unaudited)
Revenue	$ 507,981
Net loss	(353,719)

5. Goodwill and Intangible Assets

Goodwill

The following table reflects the changes in goodwill for the years ended December 31, 2018 and 2017 :

	(in thousands)
Balance at December 31, 2016	$ 3,533,390
Acquisitions	17,121
Foreign currency translation and other adjustments	145,129
Balance at December 31, 2017	3,695,640
Acquisitions	43,746
Foreign currency translation and other adjustments	(55,425)
Balance at December 31, 2018	$ 3,683,961

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 for our entire line of products.

Intangible Assets

Intangible assets consisted of the following at December 31, 2018 and 2017 :

	December 31, 2018			December 31, 2017		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
	(in thousands)					
Developed product technologies	$ 1,006,999	$ (494,459)	$ 512,540	$ 1,006,454	$ (324,196)	$ 682,258
Customer relationships	541,717	(181,902)	359,815	546,207	(118,930)	427,277
Intellectual property	829	(129)	700	547	(59)	488
Trademarks	84,462	(1,256)	83,206	85,257	(1,075)	84,182
Customer backlog	—	—	—	6,200	(5,906)	294
Total intangible assets	$ 1,634,007	$ (677,746)	$ 956,261	$ 1,644,665	$ (450,166)	$ 1,194,499

Intangible asset amortization expense was as follows:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Intangible asset amortization expense	$ 242,849	$ 238,156	$ 206,086	$ 3,119

As of December 31, 2018, we estimate aggregate intangible asset amortization expense to be as follows:

	Estimated Amortization
	(in thousands)
2019	$ 237,461
2020	235,116
2021	205,196
2022	67,497
2023	42,694

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. We had $82.8 million and $83.8 million of trademarks recorded with an indefinite life that are not amortized at December 31, 2018 and 2017, respectively. Our indefinite-lived trademarks primarily include the SolarWinds and THWACK trademarks.

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, 2018 and 2017 . There have been no transfers between fair value measurement levels during the year ended December 31, 2018 .

	Fair Value Measurements at December 31, 2018 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)			
Money market funds	$ 117,100	$ —	$ —	$ 117,100

	Fair Value Measurements at December 31, 2017 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)			
Money market funds	$ 67,100	$ —	$ —	$ 67,100

As of December 31, 2018 and 2017 , 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 9. Debt* for additional information regarding our debt.

7. Property and Equipment

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

	December 31,	
	2018	2017
	(in thousands)	
Equipment, servers and computers	$ 32,081	$ 23,790
Furniture and fixtures	7,393	6,760
Software	2,475	3,143
Leasehold improvements	21,341	20,688
	$ 63,290	$ 54,381
Less: Accumulated depreciation and amortization	(27,426)	(20,172)
Property and equipment, net	$ 35,864	$ 34,209

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Depreciation and amortization	$ 13,007	$ 11,617	$ 9,071	$ 778

8. Accrued Liabilities and Other

Accrued liabilities and other current liabilities were as follows:

	December 31,	
	2018	2017
	(in thousands)	
Payroll-related accruals	$ 31,028	$ 24,995
Other accrued expenses and current liabilities	21,027	14,598
Total accrued liabilities and other	$ 52,055	$ 39,593

9. Debt

Debt Agreements

The following table summarizes information relating to our debt:

	December 31, 2018		December 31, 2017	
	Amount	Effective Rate	Amount	Effective Rate
	(in thousands, except interest rates)			
Revolving credit facility	$ —	—%	$ —	—%
First Lien Term Loan (as amended) due Feb 2024	1,970,100	5.27%	1,678,050	5.07%
Second Lien Floating Rate Notes (as amended) due Feb 2024	—	—%	680,000	10.14%
Total principal amount	1,970,100		2,358,050	
Unamortized discount and debt issuance costs	(46,128)		(95,478)	
Total debt	1,923,972		2,262,572	
Less: Current portion of long-term debt	(19,900)		(16,950)	
Total long-term debt	$ 1,904,072		$ 2,245,622	

Senior Secured Debt

Senior Secured First Lien Credit Facilities

In connection with the Take Private, we entered into a first lien credit agreement with Credit Suisse AG, Cayman Islands Branch, or Credit Suisse, as administrative agent and collateral agent, and a syndicate of institutional lenders and financial institutions, or Initial First Lien Credit Agreement.

The Initial First Lien Credit Agreement provided for senior secured first lien credit facilities of up to $1.65 billion , consisting of a $1.275 billion U.S. dollar term loan and a €230.0 million Euro term loan, or collectively, the Initial First Lien Term Loans, and a $125.0 million revolving credit facility (with a letter of credit sub-facility in the amount of $35.0 million), or the Initial Revolving Credit Facility, consisting of (i) a $100.0 million multicurrency tranche and (ii) a $25.0 million tranche available only in U.S. dollars. On February 5, 2016, we borrowed $1.5 billion in USD equivalent, consisting of the Initial First Lien Term Loans, and $20.0 million under the Initial Revolving Credit Facility. In May 2016, we entered into Amendment No. 1 to the First Lien Credit Agreement, or Amendment No. 1, and borrowed an additional $160.0 million in U.S. dollar term loans to finance a portion of the acquisition of LOGICnow.

In August 2016, we entered into Amendment No. 2 to the Initial First Lien Credit Agreement, or Amendment No. 2, which replaced the Initial First Lien Term Loans with a new $1.7 billion U.S. dollar term loan, or the 2016 Refinancing First Lien Term Loan. For certain lenders of the syndicate, Amendment No. 2 was determined to be a debt extinguishment and, accordingly, a loss on debt extinguishment of $22.8 million was recorded to other income (expense) in the consolidated statement of operations for the Successor period ended December 31, 2016.

In February 2017, we entered into Amendment No. 3 to the Initial First Lien Credit Agreement, or Amendment No. 3, which replaced the 2016 Refinancing First Lien Term Loan with a new $1.695 billion U.S. dollar term loan, or 2017 Refinancing First Lien Term Loan. For certain lenders of the syndicate, Amendment No. 3 was determined to be a debt extinguishment and, accordingly, a loss on debt extinguishment of $18.6 million was recorded to other income (expense) in the consolidated statement of operations for the year ended December 31, 2017.

In March 2018, we entered into Amendment No. 4 to the Initial First Lien Credit Agreement, or Amendment No. 4, which replaced the outstanding borrowings with a new $1.99 billion U.S. dollar term loan, or First Lien Term Loan. The Initial First Lien Credit Agreement, as amended by Amendment No. 1, Amendment No. 2, Amendment No. 3 and Amendment No. 4 is referred to here as the First Lien Credit Agreement. The proceeds of the First Lien Term Loan were used to repay all outstanding borrowings including accrued interest under the 2017 Refinancing First Lien Term Loan and a portion of the Second Lien Notes (as defined below), including accrued interest and related transaction costs. In connection with Amendment No. 4, a loss on debt extinguishment of $21.4 million was recorded to other income (expense) in the consolidated statement of operations for the year ended December 31, 2018 .

The First Lien Credit Agreement provides for senior secured first lien credit facilities, consisting as of December 31, 2018 of:

- a $1.99 billion First Lien Term Loan with a final maturity date of February 5, 2024; and
- a $125.0 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 $100.0 million multicurrency tranche and (ii) a $25.0 million tranche available only in U.S. dollars, of which $7.5 million has a final maturity date of February 5, 2021 and $17.5 million has a final maturity date of February 5, 2022.

Prior to the completion of our IPO, borrowings under our Revolving Credit Facility bore interest at a floating rate which was, at our option, either (1) a Eurodollar rate for a specified interest period plus an applicable margin of 3.00% or (2) a base rate plus an applicable margin of 2.00% . Upon completion of our IPO, the applicable margins for Eurodollar rate and base rate borrowings are subject to reductions to 2.50% and to 1.50% , respectively. The Eurodollar rate applicable to the Revolving Credit Facility is subject to a “floor” of 0.0% .

Prior to the completion of our IPO, borrowings under our First Lien Term Loan bore interest at a floating rate which was, at our option, either (1) a Eurodollar rate for a specified interest period plus an applicable margin of 3.00% or (2) a base rate plus an applicable margin of 2.00% . Upon completion of our IPO, the applicable margins for Eurodollar and base rate borrowings were each subject to a reduction to 2.75% and 1.75% , respectively. The Eurodollar rate applicable to the First Lien Term Loan is subject to a “floor” of 0.0% .

The Eurodollar rate is equal to an adjusted London Interbank Offered Rate, or LIBOR, for a one -, two -, three - or six -month interest period with a LIBOR floor of 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 adjusted LIBOR plus 1.0% per annum.

The First Lien Term Loan requires equal quarterly repayments equal to 0.25% of the original 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 0.50% per annum of unused commitments under the Revolving Credit Facility. The commitment fee is subject to a reduction to 0.375% per annum based on our first lien net leverage ratio.

The First Lien 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 First Lien 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, 2018 , we were in compliance with all covenants of the First Lien Credit Agreement.

The following table summarizes the future minimum principal payments under the First Lien Term Loan outstanding as of December 31, 2018 :

	As of December 31, 2018
	(in thousands)
2019	$ 19,900
2020	19,900
2021	19,900
2022	19,900
2023	19,900
Thereafter	1,870,600
Total minimum principal payments	$ 1,970,100

Senior Secured Second Lien Credit Facility

In February 2016, in connection with the Take Private, we issued senior secured second lien floating rate notes, or the Second Lien Notes, with approximately $580.0 million aggregate principal amount due in February 2024. In May 2016, we entered into

Amendment No.1 to the Second Lien Notes and issued an additional $100.0 million to finance a portion of the acquisition of LOGICnow. The Second Lien Notes bore interest at a rate per annum, reset quarterly, equal to a three-month Adjusted LIBOR Rate, with a "floor" of 1.0% , plus 8.75% .

In March 2018, we terminated the agreements governing our Second Lien Notes and repaid or exchanged the then-outstanding principal on our Second Lien Notes of $680.0 million and replaced the Second Lien Notes with a new second lien credit agreement, or the Second Lien Credit Agreement, with Wilmington Trust, National Association or Wilmington Trust, as administrative agent and collateral agent, and certain other financial institutions. The Second Lien Credit Agreement provided for a $315.0 million U.S. dollar term loan, or the Second Lien Term Loan, with a final maturity of February 5, 2025 and did not require periodic principal payments. In connection with the redemption and exchange of our Second Lien Notes, a loss on debt extinguishment of $39.2 million , which includes a $22.7 million redemption premium, was recorded to other income (expense) in the consolidated statement of operations for the year ended December 31, 2018 .

In October 2018, we completed our IPO and used a portion of the net proceeds from the offering to repay the $315.0 million in borrowings outstanding under our Second Lien Term Loan. In connection with the repayment of our Second Lien Term Loan, a loss on debt extinguishment of $19.5 million , which includes a $14.2 million prepayment fee, was recorded to other income (expense) in the consolidated statement of operations for the year ended December 31, 2018 .

10. Redeemable Convertible Class A Common Stock

Prior to the conversion of Class A Common Stock into common stock at the IPO, the Class A Common Stock accrued dividends at a rate of 9% per annum and had a liquidation preference equal to $1,000 per share plus any accrued and unpaid dividends. Redeemable convertible Class A Common Stock was recorded at liquidation value plus accrued, unpaid dividends in our consolidated balance sheets. Cumulative undeclared and unpaid dividends on Class A Common Stock totaled $485.9 million at December 31, 2017 .

In October 2018, we amended our certificate of incorporation to modify the conversion price of the Class A Common Stock from the initial public offering price per share to a stated conversion price of $19.00 per share. Therefore, immediately prior to the completion of our IPO, we converted each outstanding share of our Class A Common Stock into 140,053,370 shares of common stock equal to the result of the liquidation value of such share of Class A Common Stock, divided by $19.00 per share. The liquidation value for each share of Class A Common Stock was equal to $1,000 . At the time of the conversion of the Class A Common Stock, we also converted $717.4 million of accrued and unpaid dividends on the Class A Common Stock into 37,758,109 shares of common stock equal to the result of the accrued and unpaid dividends on each share of Class A Common Stock, divided by $19.00 per share. Upon the modification and conversion of the Class A Common Stock into common stock, we recognized a $711.2 million gain related to the difference between the fair value of the consideration transferred to the Class A Common Stock shareholders and the carrying value of the Class A Common Stock. The gain on conversion of Class A Common Stock was recorded in accumulated deficit and included in net income (loss) available to common shareholders in the computation of net income (loss) per share.

11. Stockholders' Equity (Deficit) and Stock-Based Compensation

Successor

Common Stock and Preferred Stock

As of December 31, 2017, the Company had authorized capital stock of 238,755,000 shares consisting of 5,755,000 shares of Class A Common Stock, par value $0.001 per share, or Class A Common Stock, and 233,000,000 shares of Class B Common Stock, par value of $0.001 per share, or Class B Common Stock.

In October 2018, we completed our IPO in which we sold and issued 25,000,000 shares of our common stock at an issue price of $15.00 per share. We raised a total of $375.0 million in gross proceeds from the offering, or approximately $353.0 million in net proceeds after deducting underwriting discounts and commissions of $17.8 million and offering-related expenses of approximately $4.2 million .

Upon the closing of our IPO, all shares of Class A Common Stock that were outstanding immediately prior to the closing of the offering converted into shares of common stock in accordance with the terms of our certificate of incorporation, as amended. In addition, we converted the accrued and unpaid dividends on the Class A Common Stock into shares of common stock equal to the result of the accrued and unpaid dividends on each share of Class A Common Stock, divided by the conversion price of $19.00 per share. See *Note 10. Redeemable Convertible Class A Common Stock* for additional details of the conversion of the Class A Common Stock. All outstanding shares of Class B Common Stock converted into common stock on a one -for-one basis.

In October 2018, following consummation of our IPO, we amended our certificate of incorporation to, among other things, set the authorized capital stock of the Company at 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.

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 will continue to govern the terms and conditions of all outstanding equity awards granted under the 2016 Plan.

The Company has issued common stock-based incentive awards, consisting of nonqualified stock options exercisable for shares of common stock and restricted shares of common stock, under the 2016 Plan to employees and certain members of the Company's board of directors. Options and restricted stock issued under the 2016 Plan to employees at the level of vice president and below 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. Options and restricted stock issued under the 2016 Plan to employees at the level of group vice president and above generally vest 50% annually over four or five years on each anniversary of the vesting commencement date and 50% annually over four or five years after the end of each applicable fiscal year provided specified performance targets set by the board of directors are achieved for that fiscal year, 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 stock option agreements and restricted stock purchase agreements, the Company has the right (but will not be required) to repurchase restricted stock that has been 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 will be equal to the lesser of (i) the price the stockholder paid for those shares and (ii) the fair market value of those shares. The repurchase price for any vested shares will be equal to the fair market value of those shares unless the stockholder was terminated for cause or the stockholder violated any restrictive covenants in its agreements with the Company. If a stockholder is terminated for cause or violates any restrictive covenants, the repurchase price for the stockholder's vested shares will be the same as for unvested 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, 2018 , common stock-based incentive awards of 8,115,334 were outstanding under the 2016 Plan consisting of 3,129,900 stock options and 4,985,434 shares of restricted common stock. For the years ended December 31, 2018 and 2017 , and for the period of February 5, 2016 to December 31, 2016, the Company repurchased 272,133 , 640,454 and 14,000 shares, respectively, of vested and 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, 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 . We reserved 30,000,000 shares of our common stock for issuance under the 2018 Plan. As of December 31, 2018, stock-based incentive awards of 7,248,388 were outstanding under the 2018 Plan, consisting of 6,277,466 restricted stock units, or RSUs, and 970,922 performance stock units, or PSUs, at the target award amount and 22,751,612 shares were reserved for future grants.

RSUs generally vest annually over four years on each anniversary of the vesting commencement date, 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 ended December 31, 2019 and subject to continued service through the applicable vesting dates. Based on the extent to which the performance targets are achieved, vested shares may range from 0% to 150% of the target award amount.

Stock-based compensation expense recorded for the year ended December 31, 2018 was $5.8 million and was immaterial for the year ended December 31, 2017 and the Successor period from February 5, 2016 through December 31, 2016.

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, 2017	2,156,550	$ 0.45		
Options granted	1,327,475	3.40		
Options exercised	(46,100)	0.36		
Options forfeited	(288,075)	1.38		
Options expired	(35,050)	0.36		
Outstanding balances at December 31, 2018	3,114,800	$ 1.62		
Options exercisable at December 31, 2018	659,950	$ 0.40	$ 8,865	7.92
Options vested and expected to vest at December 31, 2018	3,114,800	$ 1.62	$ 38,022	8.59

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

	Year Ended December 31,	Year Ended December 31,	Period From February 5 Through December 31,
	2018	2017	2016
Weighted-average grant date fair value per share of options granted during the period	$ 1.98	$ 0.28	$ 0.12
Aggregate intrinsic value of options exercised during the period	407	2	—
Aggregate fair value of options vested during the period	109	35	—

The unrecognized stock-based compensation expense related to unvested stock options and subject to recognition in future periods was approximately $2.2 million as of December 31, 2018 . We expect to recognize this expense over weighted average periods of approximately 3.3 years at December 31, 2018 .

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, 2017	5,789,401
Restricted stock granted and issued	820,500
Restricted stock vested	(1,407,834)
Restricted stock repurchased - unvested shares	(216,633)
Unvested balances at December 31, 2018	4,985,434

Restricted stock was purchased at fair market value by the employee and common stock was issued at the date of grant. The weighted-average grant date fair market value of restricted common stock purchased was $2.10 per share, $0.67 per share and $0.27 per share for the years ended December 31, 2018 and 2017 and for the Successor Period of February 5, 2016 through December 31, 2016, respectively. The aggregate intrinsic value of restricted stock vested during the years ended December 31, 2018 and 2017 was $3.7 million and $0.8 million , respectively. There were no vestings of restricted stock during the Successor Period ended December 31, 2016.

Restricted stock is subject to certain restrictions, such as vesting and a repurchase right. The common stock acquired by the employee is restricted stock because vesting is conditioned upon (i) continued employment through the applicable vesting date and (ii) for employees at the level of group vice president and above, the achievement of certain financial performance targets

determined by the board of directors. The restricted stock is subject to repurchase in the event the 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. As the restricted stock is purchased at fair market value at the time of grant, there is no stock-based compensation expense recognized related to these awards. The related liability for unvested shares is included in other long-term liabilities on the consolidated balance sheet and was $2.9 million and $1.7 million as of December 31, 2018 and 2017 , respectively.

Restricted Stock Units

The following table summarizes information about restricted stock unit activity 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, 2017	—	$ —		
Restricted stock units granted	6,283,232	14.21		
Restricted stock units vested	—	—		
Restricted stock units forfeited	(5,766)	14.21		
Unvested balances at December 31, 2018	6,277,466	$ 14.21	$ 86,817	3.81

The total unrecognized stock-based compensation expense related to unvested restricted stock units and subject to recognition in future periods is $85.1 million as of December 31, 2018 and we expect to recognize this expense over a weighted-average period of 3.81 years .

Performance Stock Units

The following table summarizes information about performance stock unit activity 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, 2017	—	$ —		
Performance stock units granted	970,922	14.21		
Performance stock units vested	—	—		
Performance stock units forfeited	—	—		
Unvested balances at December 31, 2018	970,922	$ 14.21	$ 13,428	2.16

Assuming the PSUs vest at the target award amount, the total unrecognized stock-based compensation expense related to unvested performance stock units and subject to recognition in future periods is $12.6 million as of December 31, 2018 and we expect to recognize this expense over a weighted-average period of 2.16 years .

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. We reserved a total of 3,750,000 shares of our common stock are available for sale 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 offering period. The ESPP will typically be implemented through consecutive six -month offering periods. Amounts deducted and accumulated from participant compensation, or otherwise funded in any participating non-U.S. jurisdiction in which payroll deductions are not permitted, 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. No participant may purchase more than $25,000 worth of common stock per calendar year.

We did not have an ESPP offering period in 2018, therefore no stock-based compensation expense was recognized related to our ESPP plan.

Predecessor

Predecessor Stock Plans

Our Predecessor Stock Plans included our Amended and Restated Stock Incentive Plan, or 2005 Stock Plan, our 2008 Equity Incentive Plan, or 2008 Stock Plan, and our 2015 Performance Incentive Plan, or 2015 Stock Plan. Our ability to grant any future equity awards under the 2015 Plan terminated in February 2016 following the consummation of the Take Private.

As a result of the Take Private, all outstanding stock option awards granted under our Predecessor Stock Plans, whether vested or unvested, were cancelled and converted into the right to receive the per share price of $60.10 less the applicable exercise price per share and applicable withholding taxes.

All outstanding restricted stock units, or RSUs, granted under the 2008 Plan, other than those RSUs granted to certain of our management team members, vested in full and were converted into the right to receive the per share price less applicable withholding taxes. The vesting of the RSUs held by certain of our officers (excluding those RSUs issued under the 2015 Plan) accelerated by 50% at the Take Private, and these vested RSUs were cancelled and converted into the right to receive the per share price less applicable withholding taxes. The remaining unvested RSUs held by such officers and all RSUs issued under our 2015 Plan were cancelled and converted into the right to receive the per share price less applicable withholding taxes shortly after those RSUs would have vested based on the underlying original RSU vesting schedule and subject to continued employment of the holders of those RSUs. See *Note 16. Commitments and Contingencies* for further discussion of the Successor Take Private deferred stock payments related to the Predecessor awards not subject to accelerated vesting.

For the period from January 1, 2016 through February 4, 2016, we recognized stock-based compensation expense of $87.8 million , of which $80.3 million related to the acceleration of stock awards at the Take Private.

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

	Period From January 1 Through February 4, 2016
Weighted-average grant date fair value per share of options granted during the period	$ —
Aggregate intrinsic value of options exercised during the period	1,584
Aggregate fair value of options vested during the period	3,702

The aggregate fair value of restricted stock units vested during the period from January 1, 2016 through February 4, 2016 was $88.8 million . For restricted stock units granted, the number of shares issued on the date the restricted stock units vest is generally net of the minimum statutory withholding requirements that we pay in cash to the appropriate taxing authorities on behalf of our employees. We withheld and retired approximately 40,000 shares to satisfy $2.3 million of employees' tax obligations for the period from January 1, 2016 through February 4, 2016. These shares are treated as common stock repurchases in our consolidated financial statements.

12. Net Income (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 income (loss) per share follows:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Basic net earnings (loss) per share				
Numerator:				
Net loss	$ (102,066)	$ (83,866)	$ (262,594)	$ (71,811)
Accretion of dividends on Class A common stock	(231,549)	(268,007)	(217,904)	—
Gain on conversion of Class A common stock	711,247	—	—	—
Earnings allocated to unvested restricted stock	(12,997)	—	—	—
Net income (loss) available to common stockholders	$ 364,635	$ (351,873)	$ (480,498)	$ (71,811)
Denominator:				
Weighted-average common shares outstanding used in computing basic net earnings (loss) per share	140,301	100,433	96,465	71,989
Diluted net earnings (loss) per share				
Numerator:				
Net income (loss) available to common stockholders	$ 364,635	$ (351,873)	$ (480,498)	$ (71,811)
Denominator:				
Weighted-average shares used in computing basic net earnings (loss) per share	140,301	100,433	96,465	71,989
Add stock-based incentive stock awards	2,240	—	—	—
Weighted-average shares used in computing diluted net earnings (loss) per share	142,541	100,433	96,465	71,989

The following weighted-average outstanding shares of common stock equivalents were excluded from the computation of the diluted net income (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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Stock options to purchase common stock	524	1,635	493	659
Performance-based stock options to purchase common stock	119	105	5	—
Non-vested restricted stock incentive awards	3,442	3,565	1,524	—
Performance-based non-vested restricted stock incentive awards	1,559	2,527	965	—
Restricted stock units	1,139	—	—	16
Performance stock units	175	—	—	—
Total anti-dilutive shares	6,958	7,832	2,987	675

Prior to the conversion at the IPO, Class A Common Stock was not included in the basic or diluted earnings (loss) per share calculations as it was contingently convertible upon a future event. See *Note 10. Redeemable Convertible Class A Common Stock* for additional details of the conversion of the Class A Common Stock.

The calculation of diluted earnings 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 purchase of restricted stock.

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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Employee benefit plan expense	$ 4,474	$ 4,299	$ 2,145	$ 1,866

14. Related Party Transactions

Management Fee Agreement with Silver Lake Management, Thoma Bravo and TB Partners

On February 5, 2016, we entered into a Management Fee Agreement with Silver Lake Management Company IV, L.L.C. (Silver Lake Management), Thoma Bravo, LLC (Thoma Bravo) and Thoma Bravo Partners XI, L.P. (TB Partners and, collectively with Silver Lake Management and Thoma Bravo, the Managers), pursuant to which the Managers provided business and organizational strategy and financial and advisory services. Under the Management Fee Agreement, we paid to the Managers quarterly payments of $2.5 million in the aggregate, plus fees for certain corporate transactions in the Managers' discretion. Each payment of fees under the Management Fee Agreement was allocated among the Managers as follows: 50% to Silver Lake Management, 40.73% to Thoma Bravo and 9.27% to TB Partners. We also reimbursed each of the Managers for all out-of-pocket costs incurred in connection with activities under the Management Fee Agreement, and we indemnified the Managers and their respective related parties from and against all losses, claims, damages and liabilities related to the performance of the Managers obligations under the Management Fee Agreement. The Management Fee Agreement terminated upon the consummation of the IPO in October 2018 and no future payments are required.

The following table details the management fees for the respective periods:

	Year Ended December 31,		Period From February 5 Through December 31,
	2018	2017	2016
	(in thousands)		
Silver Lake Management	$ 4,063	$ 5,000	$ 4,519
Thoma Bravo	3,309	4,073	3,681
TB Partners	753	927	838
	$ 8,125	$ 10,000	$ 9,038

15. Income Taxes

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
U.S.	$ (116,459)	$ (13,857)	$ (255,846)	$ (107,749)
International	(5,251)	(47,611)	(103,399)	(17,218)
Loss before income taxes	$ (121,710)	$ (61,468)	$ (359,245)	$ (124,967)

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Current:				
Federal	$ (10,906)	$ 118,909	$ 9,831	$ (33,958)
State	2,191	455	579	—
International	10,759	1,009	605	(1,343)
	2,044	120,373	11,015	(35,301)
Deferred:				
Federal	(14,978)	(90,498)	(92,602)	(11,155)
State	670	79	(967)	(2,771)
International	(7,380)	(7,556)	(14,097)	(3,929)
	(21,688)	(97,975)	(107,666)	(17,855)
	$ (19,644)	$ 22,398	$ (96,651)	$ (53,156)

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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Expense (benefit) derived by applying the federal statutory income tax rate to income (loss) before income taxes	$ (25,558)	$ (21,514)	$ (125,736)	$ (43,739)
State taxes, net of federal benefit	2,435	297	(241)	(1,801)
Permanent items	224	(613)	1,819	3,145
Impact of the Tax Act				
One-time transition tax	140	130,802	—	—
Rate change	—	(91,545)	—	—
Domestic production activity benefit	—	(3,794)	—	(308)
Research and experimentation tax credits	(1,955)	(270)	329	(2,199)
Withholding tax	2,486	—	3,951	—
Net operating loss carryback	—	—	—	3,872
Stock-based compensation	238	—	—	(14,076)
Effect of foreign operations	2,346	9,035	23,227	1,950
	$ (19,644)	$ 22,398	$ (96,651)	$ (53,156)

The Tax Act reduces the U.S. federal corporate tax rate from 35% to 21% , requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that have not been taxed previously in the U.S., and creates new taxes on certain foreign sourced earnings. We are required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax, re-measuring our U.S. deferred tax assets and liabilities as well as reassessing the net realizability of our deferred tax assets and liabilities. In December 2017, the SEC staff issued *Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (SAB 118)* , which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Due to the timing of the enactment and the complexity involved in applying the provisions of the Tax Act, we made reasonable estimates of the effects and recorded provisional amounts in our consolidated financial statements for the year ended December 31, 2017 .

Included in the provisional amount recorded for the year ended December 31, 2017 is a one-time transition tax of $130.8 million on our accumulated foreign earnings. We have elected to pay the related liability due to this transition tax of $120.8 million over eight years . This income tax expense was partially offset by $91.5 million related to the re-measurement of our deferred tax assets and liabilities at the revised U.S. statutory rates.

During 2018, we completed our accounting for the income tax effects of the Tax Act. Upon further analysis of the Tax Act, additional guidance issued by the U.S. Treasury Department, state taxing authorities, and other standard-setting bodies, we finalized our calculation of the transition tax during the year ended December 31, 2018. We recognized an additional expense of $0.1 million to the provisional amounts noted above and included these adjustments as a component of income tax expense from continuing operations. We reduced our liability related to the transition tax by $9.6 million . The final transition tax liability of $111.2 million will be paid over eight years.

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

	December 31,	
	2018	2017
	(in thousands)	
Deferred tax assets:		
Allowance for doubtful accounts	$ 436	$ 201
Accrued expenses	3,133	4,323
Net operating loss	26,652	47,631
Research and experimentation credits	1,689	2,177
Stock-based compensation	1,090	—
Interest	1,528	—
Deferred revenue	1,164	—
Other credits	790	2,920
Total deferred tax assets	36,482	57,252
Valuation allowance	(1,775)	(1,811)
Deferred tax assets, net of valuation allowance	34,707	55,441
Deferred tax liabilities:		
Property and equipment	9,107	11,891
Prepaid expenses	1,805	1,230
Deferred revenue	—	101
Debt costs	9,118	14,917
Foreign royalty	2,017	714
Intangibles	152,931	189,686
Total deferred tax liabilities	174,978	218,539
Net deferred tax liability	$ 140,271	$ 163,098

The Tax Act reduces the U.S. federal corporate tax rate from 35% to 21% for our tax years beginning in 2018, which resulted in the re-measurement of the federal portion of our deferred tax assets and liabilities as of December 31, 2017 from 35% to the new 21% tax rate. At December 31, 2018 and 2017 , we had net operating loss carry forwards for U.S. federal income tax purposes of approximately $12.2 million and $91.5 million , respectively, of which $12.2 million and $4.3 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 2021 through 2037.

At December 31, 2018 and 2017 , we had net operating loss carry forwards for certain state income tax purposes of approximately $106.7 million and $103.7 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, 2018 and 2017 , we had foreign net operating loss carry forwards of approximately $78.6 million and $100.5 million , respectively, which are available to offset future foreign taxable income, and begin to expire in 2019.

At December 31, 2018 and 2017 , we had research and experimentation tax credit carry forwards of approximately $0.7 million and $0.7 million , respectively, which are available to offset future U.S. federal income tax. These U.S. federal tax credits begin to expire in 2027.

We received a corporate income tax holiday in the Philippines which expired in 2018. We anticipate an extension of the corporate tax holiday through 2019. The income tax benefit attributable to this holiday is insignificant as of December 31, 2018 .

We establish valuation allowances when necessary to reduce deferred tax assets to amounts expected to be realized. As of December 31, 2018 and 2017 , we have recorded a valuation allowance of $1.8 million and $1.8 million , respectively. The valuation allowance is all related to the deferred tax assets of a Canadian subsidiary.

The Tax Act imposes a mandatory transition tax on accumulated foreign earnings as of December 31, 2017. Effective January 1, 2018, the Tax Act creates a new territorial tax system in which we will recognize the tax impact of including certain foreign earnings in U.S. taxable income as a period cost. For the year ended December 31, 2018, we do not anticipate incurring a global intangible low-taxed income, or GILTI, liability; however, to the extent that we incur expense under the GILTI provisions, we will treat it as a component of income tax expense in the period incurred. Although accumulated foreign earnings have been subject

to U.S. tax as of December 31, 2017, and future foreign earnings will be subject to a new territorial tax system, we intend to indefinitely reinvest all foreign earnings. Therefore, we have not recognized deferred income taxes for local country income and withholding taxes that could be incurred on distributions of certain foreign earnings or for outside basis differences in our subsidiaries.

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Gross unrecognized tax benefits	$ 19,709	$ 19,504	$ 22,888	$ 17,631

Our policy is to include interest and penalties related to unrecognized tax benefits as a component of income tax expense. At December 31, 2018 and 2017 , we had accrued interest and penalties related to unrecognized tax benefits of approximately $4.1 million and $3.0 million , respectively.

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

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Balance, beginning of year	$ 19,504	$ 22,888	$ 17,631	$ 16,370
Increases for tax positions related to the current year	59	502	4,421	1,335
Decreases for tax positions related to the current year	—	(715)	—	—
Increases for tax positions related to prior years	146	—	836	230
Decreases for tax positions related to prior years	—	(3,171)	—	(304)
Reductions due to lapsed statute of limitations	—	—	—	—
Balance, end of year	$ 19,709	$ 19,504	$ 22,888	$ 17,631

We do not believe that it is reasonably possible that our unrecognized tax benefits will significantly change in the next twelve months.

We file U.S., state and foreign income tax returns in jurisdictions with varying statutes of limitations. The 2011 through 2017 tax years generally remain open and subject to examination by federal tax authorities. The 2011 through 2017 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 2011 through the period ending February 2016. We are under audit by the Indian Tax Authority for the 2014 and 2017 tax years. We are currently under audit by the California Franchise Tax Board for the 2012 through 2014 tax years. We were notified in January 2019 that the Massachusetts Department of Revenue would audit the 2015 through February 2016 tax years. We were notified in December 2017 that the Swiss Tax Authorities would audit the 2014 through 2016 tax years. This audit concluded in April 2018 with no adjustments. We are not currently under audit in any other taxing jurisdictions.

On July 24, 2018, U.S. Court of Appeals for the Ninth Circuit reversed the decision of the U.S. Tax Court in Altera Corp. v. Commissioner related to the treatment of stock-based compensation in an intercompany cost sharing arrangement. On August 7, 2018, the Ninth Circuit withdrew the opinion to allow time for a reconstituted panel to confer on this appeal. Due to the uncertainty surrounding the status of the current regulations, questions related to the scope of potential benefits or obligations, and the risk of the Tax Court's decision being overturned upon appeal, we have not recorded any benefit or expense as of December 31, 2018. We will continue to monitor ongoing developments and potential impacts to our consolidated financial statements.

16. Commitments and Contingencies

Leases

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; Brno, Czech Republic; Durham, North Carolina; Manila, Philippines; Ottawa, Canada; Dundee, United Kingdom; Krakow, Poland; Lehi, Utah and Singapore.

At December 31, 2018, future minimum lease payments under non-cancellable operating leases were as follows:

	Minimum Lease Payments
	(in thousands)
2019	$ 15,287
2020	15,105
2021	14,138
2022	13,412
2023	12,340
Thereafter	53,734
Total minimum lease payments	$ 124,016

Rent expense was as follows:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Rent expense	$ 18,249	$ 16,298	$ 12,688	$ 1,088

Take Private Deferred Stock Payments

As a result of the Take Private, RSUs granted to certain of our employees under the existing stock plans not subject to accelerated vesting were cancelled and converted into the right to receive the per share price of $60.10 less applicable withholding taxes shortly after those RSUs would have vested based on the underlying original RSU vesting schedule and subject to continued employment of the holders of those RSUs. As of December 31, 2018 , we had a liability for Take Private deferred stock payments recorded of $1.6 million included in accrued liabilities and other, related to the future payment for service provided. For the year ended December 31, 2018 , we recognized $3.2 million of compensation expense and made cash payments of approximately $4.4 million to employees related to the deferred compensation. We expect to pay approximately $3.3 million through the year 2020. The expected future payment may differ from actual payment amounts due to future employee terminations.

Legal Proceedings

From time to time, we have been and may be involved in various legal proceedings arising in our ordinary course of business. In the opinion of management, resolution of any pending claims (either individually or in the aggregate) is not expected to have a material adverse impact on our consolidated financial statements, cash flows or financial position and it is not possible to provide an estimated amount of any such loss. However, the outcome of disputes is inherently uncertain. Therefore, although management considers the likelihood of such an outcome to be remote, an unfavorable resolution of one or more matters could materially affect our future results of operations or cash flows, or both, in a particular period.

17. Operating Segments and Geographic Information

We operate as a single segment. Our chief operating decision-maker 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 new license and subscription sales, maintenance renewals and discrete financial information 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:

	Successor			Predecessor
	Year Ended December 31,		Period From February 5 Through December 31,	Period From January 1 Through February 4,
	2018	2017	2016	2016
	(in thousands)			
Revenue				
United States, country of domicile	$ 505,304	$ 459,701	$ 268,426	$ 31,797
International	327,785	268,316	153,668	15,530
Total revenue	$ 833,089	$ 728,017	$ 422,094	$ 47,327

	December 31,	
	2018	2017
	(in thousands)	
Long-lived assets, net		
United States, country of domicile	$ 22,953	$ 20,986
Switzerland	4,878	3,941
All other international	8,033	9,282
Total long-lived assets, net	$ 35,864	$ 34,209

18. Quarterly Results of Operations

The following table sets forth our unaudited quarterly consolidated statements of operations data for each of the quarters indicated. The information for each quarter has been prepared on a basis consistent with our audited consolidated financial statements included in this Annual Report on Form 10-K, and reflect, in the opinion of management, all adjustments of a normal, recurring nature that are necessary for a fair statement of the financial information contained in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future. The following quarterly financial data should be read in conjunction with our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

	Three months ended,							
	Dec 31, 2018	Sep 30, 2018	June 30, 2018	Mar 31, 2018	Dec 31, 2017	Sep 30, 2017	June 30, 2017	Mar 31, 2017
	(in thousands, except per share data) (unaudited)							
Revenue	$ 221,181	$ 213,277	$ 201,718	$ 196,913	$ 198,339	$ 189,112	$ 175,441	$ 165,125
Gross profit	159,184	151,420	140,043	135,707	139,268	130,409	117,932	108,677
Loss before income taxes	(14,342)	(524)	(38,577)	(68,267)	(4,894)	(1,418)	(2,375)	(52,781)
Net income (loss)	(14,743)	(398)	(27,015)	(59,910)	(39,761)	1,637	(2,004)	(43,738)
Net income (loss) available to common stockholders	668,426	(75,006)	(99,193)	(129,745)	(109,563)	(66,627)	(68,043)	(107,640)
Basic income (loss) per share	$ 2.63	$ (0.73)	$ (0.97)	$ (1.28)	$ (1.09)	$ (0.66)	$ (0.68)	$ (1.08)
Diluted income (loss) per share	$ 2.60	$ (0.73)	$ (0.97)	$ (1.28)	$ (1.09)	$ (0.66)	$ (0.68)	$ (1.08)
Shares used in computation of basic income (loss) per share	254,209	102,078	102,018	101,644	100,737	100,759	100,404	99,817
Shares used in computation of diluted income (loss) per share	256,711	102,078	102,018	101,644	100,737	100,759	100,404	99,817

SOLARWINDS NORTH AMERICA, INC. (PREDECESSOR, FORMERLY SOLARWINDS, INC.)

SOLARWINDS CORPORATION (SUCCESSOR, FORMERLY SOLARWINDS PARENT, INC.)

FINANCIAL STATEMENT SCHEDULE

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

	Beginning Balance	Additions (Charge to Expense)	Deductions (Write-offs, net of Recoveries)	Ending Balance
		(in thousands)		
Allowance for doubtful accounts, customers and other:				
Predecessor period ended February 4, 2016	$ 649	$ 64	$ 45	$ 668
Successor period ended December 31, 2016	—	1,713	711	1,002
Year ended December 31, 2017	1,002	2,489	1,426	2,065
Year ended December 31, 2018	2,065	2,498	1,367	3,196
Tax valuation allowances:				
Predecessor period ended February 4, 2016	$ —	$ —	$ —	$ —
Successor period ended December 31, 2016	—	—	—	—
Year ended December 31, 2017	—	1,811	—	1,811
Year ended December 31, 2018	1,811	—	36	1,775

Exhibit 10.7

SOLARWINDS CORPORATION

2018 EMPLOYEE STOCK PURCHASE PLAN

(As Amended and Restated on February 19, 2019)

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SolarWinds Corporation
2018 Employee Stock Purchase Plan

(As Amended and Restated on February 19, 2019)

1. **ESTABLISHMENT, PURPOSE AND TERM OF PLAN.**

1.1 **Establishment.** The SolarWinds Corporation 2018 Employee Stock Purchase Plan is hereby established effective as of the effective date of the initial registration by the Company of its Stock under Section 12 of the Securities Exchange Act of 1934, as amended (the *“ **Effective Date** ”*).

1.2 **Purpose.** The purpose of the Plan is to advance the interests of the Company and its stockholders by providing an incentive to attract, retain and reward Eligible Employees of the Participating Company Group and by motivating such persons to contribute to the growth and profitability of the Participating Company Group. The Plan provides Eligible Employees with an opportunity to acquire a proprietary interest in the Company through the purchase of Stock. The Plan is comprised of the Section 423 Plan and the Non-423 Plan. The Company intends that the Section 423 Plan qualify as an “employee stock purchase plan” under Section 423 of the Code (including any amendments or replacements of such section), and the Section 423 Plan shall be so construed. The Non-423 Plan, which is not intended to qualify as an “employee stock purchase plan” under Section 423 of the Code, is intended to provide Eligible Employees employed by Participating Companies outside the United States with an opportunity to purchase shares of Stock pursuant to the terms and conditions of the Plan but not necessarily in compliance with the requirements of Section 423 of the Code.

1.3 **Term of Plan.** The Plan shall continue in effect until its termination by the Committee.

2. **DEFINITIONS AND CONSTRUCTION.**

2.1 **Definitions.** Any term not expressly defined in the Plan but defined for purposes of Section 423 of the Code shall have the same definition herein. Whenever used herein, the following terms shall have their respective meanings set forth below:

(a) *“ **Board** ”* means the Board of Directors of the Company.

(b) *“ **Change in Control** ”* means the occurrence of any one or a combination of the following:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the “beneficial owner” (as such term is defined in Rule 13d-3 promulgated under the Exchange Act), directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total Fair Market Value or total

combined voting power of the Company's then-outstanding securities entitled to vote generally in the election of Directors; provided, however, that a Change in Control shall not be deemed to have occurred if such degree of beneficial ownership results from any of the following: (A) an acquisition by any person who on the Effective Date is the beneficial owner of more than fifty percent (50%) of such voting power, (B) any acquisition directly from the Company, including, without limitation, pursuant to or in connection with a public offering of securities, (C) any acquisition by the Company, (D) any acquisition by a trustee or other fiduciary under an employee benefit plan of a Participating Company or (E) any acquisition by an entity owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of the voting securities of the Company; or

(ii) an Ownership Change Event or series of related Ownership Change Events (collectively, a "Transaction") in which the stockholders of the Company immediately before the Transaction do not retain immediately after the Transaction direct or indirect beneficial ownership of more than fifty percent (50%) of the total combined voting power of the outstanding securities entitled to vote generally in the election of Directors or, in the case of an Ownership Change Event described in Section 2.1(l)(iii), the entity to which the assets of the Company were transferred (the "Transferee"), as the case may be; or

(iii) a date specified by the Committee following approval by the stockholders of a plan of complete liquidation or dissolution of the Company;

provided, however, that a Change in Control shall be deemed not to include a transaction described in subsections (i) or (ii) of this Section 2.1(b) in which a majority of the members of the board of directors of the continuing, surviving or successor entity, or parent thereof, immediately after such transaction is comprised of Incumbent Directors.

For purposes of the preceding sentence, indirect beneficial ownership shall include, without limitation, an interest resulting from ownership of the voting securities of one or more corporations or other business entities which own the Company or the Transferee, as the case may be, either directly or through one or more subsidiary corporations or other business entities. The Committee shall determine whether multiple events described in subsections (i), (ii) and (iii) of this Section 2.1(b) are related and to be treated in the aggregate as a single Change in Control, and its determination shall be final, binding and conclusive.

(c) "***Code***" means the Internal Revenue Code of 1986, as amended, and any applicable regulations promulgated thereunder.

(d) "***Committee***" means the Compensation Committee and such other committee or subcommittee of the Board, if any, duly appointed to administer the Plan and having such powers in each instance as shall be specified by the Board. If, at any time, there is no committee of the Board then authorized or properly constituted to administer the Plan, the Board shall exercise all of the powers of the Committee granted herein, and, in any event, the Board may in its discretion exercise any or all of such powers.

(e) “ ***Company*** ” means SolarWinds Corporation, a Delaware corporation, or any successor corporation thereto.

(f) “ ***Compensation*** ” means, with respect to any Offering Period, regular base wages or salary, overtime payments, shift premiums and payments for paid time off, calculated before deduction of (i) any income or employment tax withholdings or (ii) any amounts deferred pursuant to Section 401(k) or Section 125 of the Code. Compensation shall be limited to such amounts actually payable in cash or deferred during the Offering Period. Compensation shall not include (i) sign-on bonuses, annual or other incentive bonuses, commissions, profit-sharing distributions or other incentive-type payments, (ii) any contributions made by a Participating Company on the Participant’s behalf to any employee benefit or welfare plan now or hereafter established (other than amounts deferred pursuant to Section 401(k) or Section 125 of the Code), (iii) payments in lieu of notice, payments pursuant to a severance agreement, termination pay, moving allowances, relocation payments, or (iv) any amounts directly or indirectly paid pursuant to the Plan or any other stock purchase, stock option or other stock-based compensation plan, or any other compensation not expressly included by this Section.

(a) “ ***Eligible Employee*** ” means an Employee who meets the requirements set forth in Section 5 for eligibility to participate in the Plan.

(b) “ ***Employee*** ” means a person treated as an employee of a Participating Company, and, with respect to the Section 423 Plan, a person who is an employee for purposes of Section 423 of the Code. A Participant shall be deemed to have ceased to be an Employee either upon an actual termination of employment or upon the corporation employing the Participant ceasing to be a Participating Company. For purposes of the Section 423 Plan, an individual shall not be deemed to have ceased to be an Employee while on any military leave, sick leave, or other bona fide leave of absence approved by the Company of ninety (90) days or less. For purposes of the Section 423 Plan, if an individual’s leave of absence exceeds ninety (90) days, the individual shall be deemed to have ceased to be an Employee on the ninety-first (91st) day of such leave unless the individual’s right to reemployment with the Participating Company Group is guaranteed either by statute or by contract. The foregoing rules regarding leaves of absence shall apply equally for purposes of the Non-423 Plan, except as otherwise required by applicable Local Law.

(c) “ ***Fair Market Value*** ” means, as of any date:

(i) If, on such date, the Stock is listed or quoted on a national or regional securities exchange or quotation system, the closing price of a share of Stock as quoted on the national or regional securities exchange or quotation system constituting the primary market for the Stock, as reported in *The Wall Street Journal* or such other source as the Company deems reliable. If the relevant date does not fall on a day on which the Stock has traded on such securities exchange or quotation system, the date on which the Fair Market Value is established shall be the last day on which the Stock was so traded or quoted prior to the relevant date, or such other appropriate day as determined by the Committee, in its discretion.

(ii) If, on the relevant date, the Stock is not then listed on a national or regional securities exchange or quotation system, the Fair Market Value of a share of Stock shall be as determined in good faith by the Committee.

(d) " ***Incumbent Director*** " means a director who either (i) is a member of the Board as of the Effective Date or (ii) is elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but excluding a director who was elected or nominated in connection with an actual or threatened proxy contest relating to the election of directors of the Company).

(e) " ***Local Law*** " means the applicable laws of the non-United States jurisdiction governing the participation in the Plan of an Eligible Employee.

(f) " ***Non-423 Plan*** " means that component of the Plan which is not intended to be an "employee stock purchase plan" under Section 423 of the Code and need not necessarily comply with the requirements of Section 423 of the Code.

(g) " ***Non-United States Offering*** " means either (i) an Offering under the Section 423 Plan covering Eligible Employees employed by a Participating Company outside the United States, provided that the terms of such Offering comply with the requirements of Section 423 of the Code, including such variations in terms of Purchase Rights as permitted by Section 3.4; or (ii) an Offering under the Non-423 Plan covering Eligible Employees of one or more Participating Companies outside the United States, the terms of which need not comply with the requirements of Section 423 of the Code.

(h) " ***Offering*** " means an offering of Stock pursuant to the Plan, as provided in Section 6.

(i) " ***Offering Date*** " means, for any Offering Period, the first day of such Offering Period.

(j) " ***Offering Period*** " means a period, established by the Committee in accordance with Section 6.1, during which an Offering is outstanding.

(k) " ***Officer*** " means any person designated by the Board as an officer of the Company.

(l) " ***Ownership Change Event*** " means the occurrence of any of the following with respect to the Company: (i) the direct or indirect sale or exchange in a single or series of related transactions by the stockholders of the Company of securities of the Company representing more than fifty percent (50%) of the total combined voting power of the Company's then outstanding securities entitled to vote generally in the election of Directors; (ii) a merger or consolidation in which the Company is a party; or (iii) the sale, exchange, or transfer of all or substantially all of the assets of the Company (other than a sale, exchange or transfer to one or more subsidiaries of the Company).

(m) " ***Parent Corporation*** " means any present or future "parent corporation" of the Company, as defined in Section 424(e) of the Code.

(n) " ***Participant*** " means an Eligible Employee who has become a participant in an Offering Period in accordance with Section 7 and remains a participant in accordance with the Plan.

(o) " ***Participating Company*** " means the Company and any Parent Corporation or Subsidiary Corporation designated by the Committee as a corporation the Employees of which may, if Eligible Employees, participate in the Plan. The Committee shall have the discretion to determine from time to time which Parent Corporations or Subsidiary Corporations shall be Participating Companies. The Committee shall designate from time to time and set forth in Appendix A to this Plan those Participating Companies whose Eligible Employees may participate in the Section 423 Plan and those Participating Companies whose Eligible Employees may participate in the Non-423 Plan.

(p) " ***Participating Company Group*** " means, at any point in time, the Company and all other corporations collectively which are then Participating Companies.

(q) " ***Plan*** " means this 2018 Employee Stock Purchase Plan of the Company, as amended from time to time, comprised of the Section 423 Plan and the Non-423 Plan.

(r) " ***Purchase Date*** " means, for any Offering Period, the last day of such Offering Period, or, if so determined by the Committee, the last day of each Purchase Period occurring within such Offering Period, on which outstanding Purchase Rights are exercised.

(s) " ***Purchase Period*** " means a period, established by the Committee in accordance with Section 6 and included within an Offering Period, the final date of which is a Purchase Date.

(t) " ***Purchase Price*** " means the price at which a share of Stock may be purchased under the Plan, as determined in accordance with Section 9.

(u) " ***Purchase Right*** " means an option granted to a Participant pursuant to the Plan to purchase such shares of Stock as provided in Section 8, which the Participant may or may not exercise during the Offering Period in which such option is outstanding. Such option arises from the right of a Participant to withdraw any payroll deductions or other funds accumulated on behalf of the Participant and not previously applied to the purchase of Stock under the Plan, and to terminate participation in the Plan at any time during an Offering Period.

(v) " ***Registration Date*** " means the effective date of the registration on Form S-8 of shares of Stock issuable pursuant to the Plan.

(w) " ***Section 423 Plan*** " means that component of the Plan which is intended to be an "employee stock purchase plan" under Section 423 of the Code.

(x) " ***Securities Act*** " means the Securities Act of 1933, as amended.

(y) " ***Stock*** " means the Common Stock of the Company, as adjusted from time to time in accordance with Section 4.2.

(z) " ***Subscription Agreement*** " means a written or electronic agreement, in such form as is specified by the Company, stating an Employee's election to participate in the Plan and authorizing payroll deductions under the Plan from the Employee's Compensation or other method of payment authorized by the Committee pursuant to Section 11.1(a).

(aa) " ***Subscription Date*** " means the last business day prior to the Offering Date of an Offering Period or such earlier date as the Company shall establish.

(bb) " ***Subsidiary Corporation*** " means any present or future "subsidiary corporation" of the Company, as defined in Section 424(f) of the Code.

2.2 **Construction.** Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of the Plan. Except when otherwise indicated by the context, the singular shall include the plural and the plural shall include the singular. Use of the term "or" is not intended to be exclusive, unless the context clearly requires otherwise.

3. **ADMINISTRATION.**

3.1 **Administration by the Committee.** The Plan shall be administered by the Committee. All questions of interpretation of the Plan, of any form of agreement or other document employed by the Company in the administration of the Plan, or of any Purchase Right shall be determined by the Committee, and such determinations shall be final, binding and conclusive upon all persons having an interest in the Plan or the Purchase Right, unless fraudulent or made in bad faith. Subject to the provisions of the Plan, the Committee shall determine all of the relevant terms and conditions of Purchase Rights; provided, however, that all Participants granted Purchase Rights pursuant to an Offering under the Section 423 Plan shall have the same rights and privileges within the meaning of Section 423(b)(5) of the Code, other than for such variations in terms of Purchase Rights as permitted by Section 3.4. Any and all actions, decisions and determinations taken or made by the Committee in the exercise of its discretion pursuant to the Plan or any agreement thereunder (other than determining questions of interpretation pursuant to the second sentence of this Section 3.1) shall be final, binding and conclusive upon all persons having an interest therein. All expenses incurred in connection with the administration of the Plan shall be paid by the Company.

3.2 **Authority of Officers.** Any Officer shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, determination or election

that is the responsibility of or that is allocated to the Company herein, provided that the Officer has apparent authority with respect to such matter, right, obligation, determination or election.

3.3 **Power to Adopt Sub-Plans.** The Committee shall have the power, in its discretion, to adopt one or more sub-plans of the Plan as the Committee deems necessary or desirable to comply with the laws or regulations, tax policy, accounting principles or custom of foreign jurisdictions applicable to employees of a subsidiary business entity of the Company, provided that any such sub-plan shall be within the scope of the Non-423 Plan. Any of the provisions of any such sub-plan may supersede the provisions of this Plan, other than Section 4. Except as superseded by the provisions of a sub-plan, the provisions of this Plan shall govern such sub-plan.

3.4 **Power to Vary Terms with Respect to Non-U.S. Employees.** In order to comply with the laws of a foreign jurisdiction, the Committee shall have the power, in its discretion and as permitted by Section 423 of the Code, to grant Purchase Rights in an Offering under the Section 423 Plan to citizens or residents of a non-U.S. jurisdiction (without regard to whether they are also citizens of the United States or resident aliens) that provide terms which are less favorable than the terms of Purchase Rights granted under the same Offering to Employees resident in the United States.

3.5 **Power to Establish Separate Offerings with Varying Terms.** The Committee shall have the power, in its discretion, to establish separate, simultaneous or overlapping Offerings having different terms and conditions and to designate the Participating Company or Companies that may participate in a particular Offering, provided that each Offering under the Section 423 Plan shall individually comply with the terms of the Plan and the requirements of Section 423(b)(5) of the Code that all Participants granted Purchase Rights pursuant to such Offering shall have the same rights and privileges within the meaning of such section, other than for such variations in terms of Purchase Rights as permitted by Section 3.4.

3.6 **Policies and Procedures Established by the Company.** Without regard to whether any Participant's Purchase Right may be considered adversely affected, the Company may, from time to time, consistent with the Plan and the requirements of Section 423 of the Code in the case of the Section 423 Plan, establish, change or terminate such rules, guidelines, policies, procedures, limitations, or adjustments as deemed advisable by the Company, in its discretion, for the proper administration of the Plan, including, without limitation, (a) a minimum payroll deduction amount required for participation in an Offering, (b) a limitation on the frequency or number of changes permitted in the rate of payroll deduction during an Offering, (c) an exchange ratio applicable to amounts withheld or paid in a currency other than United States dollars, (d) a payroll deduction greater than or less than the amount designated by a Participant in order to adjust for the Company's delay or mistake in processing a Subscription Agreement or in otherwise effecting a Participant's election under the Plan or as advisable to comply with the requirements of Section 423 of the Code, and (e) determination of the date and manner by which the Fair Market Value of a share of Stock is determined for purposes of administration of the Plan. All such actions by the Company with respect to the Section 423 Plan shall be taken consistent with the requirements under Section 423(b)(5) of the Code that all Participants granted

Purchase Rights pursuant to an Offering shall have the same rights and privileges within the meaning of such section, except as otherwise permitted by Section 3.4 and the regulations under Section 423 of the Code.

3.7 **Indemnification.** In addition to such other rights of indemnification as they may have as members of the Board or the Committee or as officers or employees of the Participating Company Group, to the extent permitted by applicable law, members of the Board or the Committee and any officers or employees of the Participating Company Group to whom authority to act for the Board, the Committee or the Company is delegated shall be indemnified by the Company against all reasonable expenses, including attorneys' fees, actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan, or any right granted hereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that such person is liable for gross negligence, bad faith or intentional misconduct in duties; provided, however, that within sixty (60) days after the institution of such action, suit or proceeding, such person shall offer to the Company, in writing, the opportunity at its own expense to handle and defend the same.

4. **SHARES SUBJECT TO PLAN.**

4.1 **Maximum Number of Shares Issuable.** Subject to adjustment as provided in Section 4.2, the maximum aggregate number of shares of Stock that may be issued under the Plan and the Section 423 Plan shall be 3,750,000, and the maximum aggregate number of shares of Stock that may be issued under the Non-423 Plan shall be 3,750,000, less the aggregate number of shares of Stock issued under the Section 423 Plan. Shares issued under the Plan shall consist of authorized but unissued or reacquired shares of Stock, or any combination thereof. If an outstanding Purchase Right for any reason expires or is terminated or canceled, the shares of Stock allocable to the unexercised portion of that Purchase Right shall again be available for issuance under the Plan.

4.2 **Annual Increase in Maximum Number of Shares Issuable.** Subject to adjustment as provided in Section 4.2, the maximum aggregate number of shares of Stock that may be issued under the Plan as set forth in Section 4.1 shall be cumulatively increased automatically on January 1, 2020 and on each subsequent January 1, through and including January 1, 2028, by a number of shares (the "***Annual Increase***") equal to the smallest of (a) 0.5% percent of the number of shares of Stock issued and outstanding on the immediately preceding December 31, (b) 5,000,000 shares, or (c) an amount determined by the Board.

4.3 **Adjustments for Changes in Capital Structure.** Subject to any required action by the stockholders of the Company and the requirements of Section 424 of the Code to the extent applicable, in the event of any change in the Stock effected without receipt of consideration by the Company, whether through merger, consolidation, reorganization, reincorporation, recapitalization, reclassification, stock dividend, stock split, reverse stock split,

split-up, split-off, spin-off, combination of shares, exchange of shares, or similar change in the capital structure of the Company, or in the event of payment of a dividend or distribution to the stockholders of the Company in a form other than Stock (excepting regular, periodic cash dividends) that has a material effect on the Fair Market Value of shares of Stock, appropriate and proportionate adjustments shall be made in the number and kind of shares subject to the Plan, any limit on the number of shares which may be purchased by any Participant during an Offering Period or Purchase Period (as described in Sections 8.1 and 8.2), the number of shares subject to each Purchase Right, and in the Purchase Price in order to prevent dilution or enlargement of Participants' rights under the Plan. For purposes of the foregoing, conversion of any convertible securities of the Company shall not be treated as "effected without receipt of consideration by the Company." If a majority of the shares which are of the same class as the shares that are subject to outstanding Purchase Rights are exchanged for, converted into, or otherwise become (whether or not pursuant to an Ownership Change Event) shares of another corporation (the *" **New Shares** "*), the Committee may unilaterally amend the outstanding Purchase Rights to provide that such Purchase Rights are for New Shares. In the event of any such amendment, the number of shares subject to, and the exercise price per share of, the outstanding Purchase Rights shall be adjusted in a fair and equitable manner as determined by the Committee, in its discretion. Any fractional share resulting from an adjustment pursuant to this Section shall be rounded down to the nearest whole number, and in no event may the Purchase Price be decreased to an amount less than the par value, if any, of the stock subject to the Purchase Right. The adjustments determined by the Committee pursuant to this Section 4.2 shall be final, binding and conclusive.

5. **ELIGIBILITY.**

5.1 **Employees Eligible to Participate.** Each Employee of a Participating Company is eligible to participate in the Plan and shall be deemed an Eligible Employee, except the following:

(a) Any Employee who is customarily employed by the Participating Company Group for twenty (20) hours or less per week; or

(b) Any Employee who is customarily employed by the Participating Company Group for not more than five (5) months in any calendar year; or

(c) Any Employee that has not been customarily employed by the Participating Company Group for at least six months or such other service requirement period designated by the Committee, in its sole discretion, pursuant to Section 423(b)(4)(A) of the Code (not to exceed two years); or

(d) Any Employee that is an executive officer of the Company for purposes of Section 16 of the Securities Exchange Act of 1934, as amended.

Further provided that any exclusion in clauses (c) or (d) will be applied in an identical manner to all Participants of each Offering under the Section 423 Plan, in accordance with U.S. Treasury Regulation Section 1.423-2(e).

(e) An Eligible Employee shall be eligible to participate in the Section 423 Plan or the Non-423 Plan in accordance with the designation in Appendix A of the Employee's employer as either a Section 423 Plan Participating Company or a Non-423 Plan Participating Company. Notwithstanding the foregoing, an Employee of a Participating Company designated in Appendix A as a Section 423 Plan Participating Company who is a citizen or resident of a non-United States jurisdiction (without regard to whether the Employee is also a citizen of the United States or a resident alien) may be excluded from participation in the Section 423 Plan or an Offering thereunder if either (i) the grant of a Purchase Right under the Section 423 Plan or Offering to a citizen or resident of the foreign jurisdiction is prohibited under the Local Law of such jurisdiction or (ii) compliance with the Local Law of such jurisdiction would cause the Section 423 Plan or Offering to violate the requirements of Section 423 of the Code. For purposes of participation in the Non-423 Plan, Eligible Employees shall include any other Employees of the applicable Non-423 Plan Participating Company to the extent that applicable Local Law requires participation in the Plan to be extended to such Employees, as determined by the Company.

5.2 **Exclusion of Certain Stockholders.** Notwithstanding any provision of the Plan to the contrary, no Employee shall be treated as an Eligible Employee and granted a Purchase Right under the Section 423 Plan if, immediately after such grant, the Employee would own, or hold options to purchase, stock of the Company or of any Parent Corporation or Subsidiary Corporation possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of such corporation, as determined in accordance with Section 423(b)(3) of the Code. For purposes of this Section 5.2, the attribution rules of Section 424(d) of the Code shall apply in determining the stock ownership of such Employee.

5.3 **Determination by Company.** The Company shall determine in good faith and in the exercise of its discretion whether an individual has become or has ceased to be an Employee or an Eligible Employee and the effective date of such individual's attainment or termination of such status, as the case may be. For purposes of an individual's participation in or other rights, if any, under the Plan as of the time of the Company's determination of whether or not the individual is an Employee, all such determinations by the Company shall be final, binding and conclusive as to such rights, if any, notwithstanding that the Company or any court of law or governmental agency subsequently makes a contrary determination as to such individual's status as an Employee.

6. OFFERINGS.

6.1 **Offering Periods.** The Plan shall be implemented by sequential Offerings of approximately six (6) months' duration or such other duration as the Committee shall determine. Offering Periods shall commence on or about the sixteenth (16th) days of February and August of each year and end on or about the fifteenth (15th) days of the next August and February, respectively, occurring thereafter. Notwithstanding the foregoing, the Committee may establish additional or alternative concurrent, sequential or overlapping Offering Periods, a different duration for one or more Offering Periods or different commencing or ending dates for such Offering Periods; provided, however, that no Offering Period may have a duration

exceeding twenty-seven (27) months. If the Committee shall so determine in its discretion, each Offering Period may consist of two (2) or more consecutive Purchase Periods having such duration as the Committee shall specify, and the last day of each such Purchase Period shall be a Purchase Date. If the first or last day of an Offering Period or a Purchase Period is not a day on which the principal stock exchange or quotation system on which the Stock is then listed is open for trading, the Company shall specify the trading day that will be deemed the first or last day, as the case may be, of the Offering Period or Purchase Period.

6.2 **Non-United States Offerings.** The Committee shall communicate to the Employees eligible to participate in a Non-United States Offering (whether pursuant to the Section 423 Plan or the Non-423 Plan) those terms of the Non-United States Offering that differ from the terms otherwise applicable to the relevant Offering covering Eligible Employees employed by a Participating Company within the United States under the Section 423 Plan a reasonable period of time prior to the Subscription Date for such Non-United States Offering.

7. **PARTICIPATION IN THE PLAN.**

7.1 **Initial Participation.**

(a) **Generally.** An Eligible Employee may become a Participant in an Offering Period by delivering a properly completed written or electronic Subscription Agreement to the Company office or representative designated by the Company (including a third-party administrator designated by the Company) not later than the close of business on the Subscription Date established by the Company for that Offering Period. An Eligible Employee who does not deliver a properly completed Subscription Agreement in the manner permitted or required on or before the Subscription Date for an Offering Period shall not participate in the Plan for that Offering Period or for any subsequent Offering Period unless the Eligible Employee subsequently delivers a properly completed Subscription Agreement to the appropriate Company office or representative on or before the Subscription Date for such subsequent Offering Period. An Employee who becomes an Eligible Employee after the Offering Date of an Offering Period shall not be eligible to participate in that Offering Period but may participate in any subsequent Offering Period provided the Employee is still an Eligible Employee as of the Offering Date of such subsequent Offering Period.

7.2 **Continued Participation.**

(a) **Generally.** A Participant shall automatically participate in the next Offering Period commencing immediately after the final Purchase Date of each Offering Period in which the Participant participates provided that the Participant remains an Eligible Employee on the Offering Date of the new Offering Period and has not either (a) withdrawn from the Plan pursuant to Section 12.1, or (b) terminated employment or otherwise ceased to be an Eligible Employee as provided in Section 13. A Participant who may automatically participate in a subsequent Offering Period, as provided in this Section, is not required to deliver any additional Subscription Agreement for the subsequent Offering Period in order to continue participation in the Plan. However, a Participant may deliver a new Subscription Agreement for a subsequent Offering Period in accordance with the procedures set forth in Section 7.1(a) if the Participant

desires to change any of the elections contained in the Participant's then effective Subscription Agreement.

8. **RIGHT TO PURCHASE SHARES.**

8.1 **Grant of Purchase Right.** Except as otherwise provided below, on the Offering Date of each Offering Period, each Participant in such Offering Period shall be granted automatically a Purchase Right consisting of an option to purchase that number of whole shares of Stock determined by dividing the Dollar Limit (determined as provided below) by the Fair Market Value of a share of Stock on such Offering Date. The Committee may, in its discretion and prior to the Offering Date of any Offering Period, (i) change the method of, or any of the foregoing factors in, determining the number of shares of Stock subject to Purchase Rights to be granted on such Offering Date, or (ii) specify a maximum aggregate number of shares that may be purchased by all Participants in an Offering or on any Purchase Date within an Offering Period. No Purchase Right shall be granted on an Offering Date to any person who is not, on such Offering Date, an Eligible Employee. For the purposes of this Section, the *" **Dollar Limit** "* shall be determined by multiplying $2,083.33 by the number of months (rounded to the nearest whole month) in the Offering Period and rounding to the nearest whole dollar.

8.2 **Calendar Year Purchase Limitation.** Notwithstanding any provision of the Plan to the contrary, no Participant (whether participating in the Section 423 Plan or the Non-423 Plan) shall be granted a Purchase Right which permits his or her right to purchase shares of Stock under the Plan to accrue at a rate which, when aggregated with such Participant's rights to purchase shares under all other employee stock purchase plans of a Participating Company intended to meet the requirements of Section 423 of the Code, exceeds Twenty-Five Thousand Dollars ($25,000) in Fair Market Value (or such other limit, if any, as may be imposed by the Code) for each calendar year in which such Purchase Right is outstanding at any time. For purposes of the preceding sentence, the Fair Market Value of shares purchased during a given Offering Period shall be determined as of the Offering Date for such Offering Period. The limitation described in this Section shall be applied in conformance with Section 423(b)(8) of the Code or any successor thereto and the regulations thereunder.

9. **PURCHASE PRICE.**

Subject to adjustment as provided by the Plan and unless otherwise provided by the Committee, the Purchase Price for each Offering Period shall be eighty-five percent (85%) of the lesser of (a) the Fair Market Value of a share of Stock on the Offering Date of the Offering Period or (b) the Fair Market Value of a share of Stock on the Purchase Date. The Committee, in its sole discretion, may determine a different Purchase Price in future Offering Periods provided the Purchase Price on each Purchase Date shall not be less than eighty-five percent (85%) of the lesser of (a) the Fair Market Value of a share of Stock on the Offering Date of the Offering Period or (b) the Fair Market Value of a share of Stock on the Purchase Date.

10. <u>**ACCUMULATION OF PURCHASE PRICE THROUGH PAYROLL DEDUCTION.**</u>

Except as provided in Section 11.1(a) with respect to a Non-United States Offering or except as otherwise provided by the Committee in connection with an Offering under the Non-423 Plan, shares of Stock acquired pursuant to the exercise of all or any portion of a Purchase Right may be paid for only by means of payroll deductions from the Participant's Compensation accumulated during the Offering Period for which such Purchase Right was granted, subject to the following:

10.1 **Amount of Payroll Deductions.** Except as otherwise provided herein, the amount to be deducted under the Plan from a Participant's Compensation on each pay day during an Offering Period shall be determined by the Participant's Subscription Agreement. The Subscription Agreement shall set forth the percentage of the Participant's Compensation to be deducted on each pay day during an Offering Period in whole percentages of not less than one percent (1%) (except as a result of an election pursuant to Section 10.3 to stop payroll deductions effective following the first pay day during an Offering) or more than twenty percent (20%). The Committee may change the foregoing limits on payroll deductions effective as of any Offering Date.

10.2 **Commencement of Payroll Deductions.** Payroll deductions shall commence on the first pay day occurring on or following the Offering Date and shall continue to the end of the Offering Period unless sooner altered or terminated as provided herein.

10.3 **Election to Decrease or Stop Payroll Deductions.** During an Offering Period, a Participant may elect to decrease the rate of or to stop (but not to increase) deductions from his or her Compensation by delivering to the Company office or representative designated by the Company (including a third-party administrator designated by the Company) an amended Subscription Agreement authorizing such change on or before the "Change Notice Date." The " ***Change Notice Date*** " shall be a date prior to the beginning of the first pay period for which such election is to be effective as established by the Company from time to time and announced to the Participants. A Participant who elects, effective following the first pay day of an Offering Period, to decrease the rate of his or her payroll deductions to zero percent (0%) shall nevertheless remain a Participant in such Offering Period unless the Participant withdraws from the Plan as provided in Section 12.1.

10.4 **Election to Increase Payroll Deductions for Subsequent Offering.** Prior to the Offering Date of any Offering Period, an Eligible Employee may elect to increase the rate of deductions from Compensation (not in excess of the limit set forth in Section 10.1) effective with the next Offering Period by delivering to the Company office or representative designated by the Company (including a third-party administrator designated by the Company) an amended Subscription Agreement authorizing such change on or before the Change Notice Date prior to the commencement of such new Offering Period.

10.5 **Administrative Suspension of Payroll Deductions.** The Company may, in its discretion, suspend a Participant's payroll deductions under the Plan as the Company

deems advisable to avoid accumulating payroll deductions in excess of the amount that could reasonably be anticipated to purchase the maximum number of shares of Stock permitted (a) under the Participant's Purchase Right, or (b) during a calendar year under the limit set forth in Section 8.2. Unless the Participant has either withdrawn from the Plan as provided in Section 12.1 or has ceased to be an Eligible Employee, suspended payroll deductions shall be resumed at the rate specified in the Participant's then effective Subscription Agreement either (i) at the beginning of the next Offering Period if the reason for suspension was clause (a) in the preceding sentence, or (ii) at the beginning of the next Offering Period having a first Purchase Date that falls within the subsequent calendar year if the reason for suspension was clause (b) in the preceding sentence.

10.6 **Participant Accounts.** Individual bookkeeping accounts shall be maintained for each Participant. All payroll deductions from a Participant's Compensation (and other amounts received from a non-United States Participant pursuant to Section 11.1(b) or pursuant to an Offering under the Non-423 Plan) shall be credited to such Participant's Plan account and shall be deposited with the general funds of the Company (except as otherwise required by Local Law in connecting with an Offering under the Non-423 Plan). All such amounts received or held by the Company may be used by the Company for any corporate purpose.

10.7 **No Interest Paid.** Interest shall not be paid on sums deducted from a Participant's Compensation pursuant to the Plan or otherwise credited to the Participant's Plan account (except as otherwise required by Local Law in connection with an Offering under the Non-423 Plan).

10.8 **Voluntary Withdrawal from Plan Account.** A Participant may withdraw all or any portion of the payroll deductions credited to his or her Plan account and not previously applied toward the purchase of Stock by delivering to the Company a written notice on a form provided by the Company for such purpose. A Participant who withdraws the entire remaining balance credited to his or her Plan account shall be deemed to have withdrawn from the Plan in accordance with Section 12.1. Amounts withdrawn shall be returned to the Participant as soon as practicable after the withdrawal and may not be applied to the purchase of shares in any Offering under the Plan. The Company may from time to time establish or change limitations on the frequency of withdrawals permitted under this Section, establish a minimum dollar amount that must be retained in the Participant's Plan account, or terminate the withdrawal right provided by this Section.

11. **PURCHASE OF SHARES.**

11.1 **Exercise of Purchase Right.**

(a) **Generally.** Except as provided in Section 11.1(a), on each Purchase Date of an Offering Period, each Participant who has not withdrawn from the Plan and whose participation in the Offering has not otherwise terminated before such Purchase Date shall automatically acquire pursuant to the exercise of the Participant's Purchase Right the number of whole shares of Stock determined by dividing (a) the total amount of the Participant's payroll

deductions accumulated in the Participant's Plan account during the Offering Period and not previously applied toward the purchase of Stock by (b) the Purchase Price. However, in no event shall the number of shares purchased by the Participant during an Offering Period exceed the number of shares subject to the Participant's Purchase Right. No shares of Stock shall be purchased on a Purchase Date on behalf of a Participant whose participation in the Offering or the Plan has terminated before such Purchase Date.

(b) **Purchase by Non-United States Participants for Whom Payroll Deductions Are Prohibited by Applicable Law.** Notwithstanding Section 11.1(a), where payroll deductions on behalf of Participants who are citizens or residents of countries other than the United States (without regard to whether they are also citizens of the United States or resident aliens) are prohibited or made impracticable by applicable Local Law, the Committee may establish a separate Offering (a *" **Non-United States Offering** "*) covering all Eligible Employees of one or more Participating Companies subject to such prohibition or restrictions on payroll deductions. The Non-United States Offering shall provide another method for payment of the Purchase Price with such terms and conditions as shall be administratively convenient and comply with applicable Local Law. On each Purchase Date of the Offering Period applicable to a Non-United States Offering, each Participant who has not withdrawn from the Plan and whose participation in such Offering Period has not otherwise terminated before such Purchase Date shall automatically acquire pursuant to the exercise of the Participant's Purchase Right a number of whole shares of Stock determined in accordance with Section 11.1(a) to the extent of the total amount of the Participant's Plan account balance accumulated during the Offering Period in accordance with the method established by the Committee and not previously applied toward the purchase of Stock. However, in no event shall the number of shares purchased by a Participant during such Offering Period exceed the number of shares subject to the Participant's Purchase Right. The Company shall refund to a Participant in a Non-United States Offering in accordance with Section 11.4 any excess Purchase Price payment received from such Participant.

11.2 **Pro Rata Allocation of Shares.** If the number of shares of Stock which might be purchased by all Participants on a Purchase Date exceeds the number of shares of Stock remaining available for issuance under the Plan or the maximum aggregate number of shares of Stock that may be purchased on such Purchase Date pursuant to a limit established by the Committee pursuant to Section 8, the Company shall make a pro rata allocation of the shares available in as uniform a manner as practicable and as the Company determines to be equitable. Any fractional share resulting from such pro rata allocation to any Participant shall be disregarded.

11.3 **Delivery of Title to Shares.** Subject to any governing rules or regulations, as soon as practicable after each Purchase Date, the Company shall issue or cause to be issued to or for the benefit of each Participant the shares of Stock acquired by the Participant on such Purchase Date by means of one or more of the following: (a) by delivering to the Participant evidence of book entry shares of Stock credited to the account of the Participant, (b) by depositing such shares of Stock for the benefit of the Participant with any broker with which the Participant has an account relationship, or (c) by delivering such shares of Stock to the Participant in certificate form.

11.4 **Return of Plan Account Balance.** Any cash balance remaining in a Participant's Plan account following any Purchase Date shall be refunded to the Participant as soon as practicable after such Purchase Date. However, if the cash balance to be returned to a Participant pursuant to the preceding sentence is less than the amount that would have been necessary to purchase an additional whole share of Stock on such Purchase Date, the Company may retain the cash balance in the Participant's Plan account to be applied toward the purchase of shares of Stock in the subsequent Purchase Period or Offering Period.

11.5 **Tax Withholding.** At the time a Participant's Purchase Right is exercised, in whole or in part, or at the time a Participant disposes of some or all of the shares of Stock he or she acquires under the Plan, the Participant shall make adequate provision for the federal, state, local and foreign taxes (including social insurance), if any, required to be withheld by any Participating Company upon exercise of the Purchase Right or upon such disposition of shares, respectively. A Participating Company may, but shall not be obligated to, withhold from the Participant's compensation the amount necessary to meet such withholding obligations. The Company or any other Participating Company shall have the right to take such other action as it determines to be necessary or advisable to satisfy withholding obligations for such taxes.

11.6 **Expiration of Purchase Right.** Any portion of a Participant's Purchase Right remaining unexercised after the end of the Offering Period to which the Purchase Right relates shall expire immediately upon the end of the Offering Period.

11.7 **Provision of Reports and Stockholder Information to Participants.** Each Participant who has exercised all or part of his or her Purchase Right shall receive, as soon as practicable after the Purchase Date, a report of such Participant's Plan account setting forth the total amount credited to his or her Plan account prior to such exercise, the number of shares of Stock purchased, the Purchase Price for such shares, the date of purchase and the cash balance, if any, remaining immediately after such purchase that is to be refunded or retained in the Participant's Plan account pursuant to Section 11.4. The report required by this Section may be delivered or made available in such form and by such means, including by electronic transmission, as the Company may determine. In addition, each Participant shall be provided information concerning the Company equivalent to that information provided generally to the Company's common stockholders.

12. **<u>WITHDRAWAL FROM PLAN.</u>**

12.1 **Voluntary Withdrawal from the Plan.** A Participant may withdraw from the Plan by signing and delivering to the Company office or representative designated by the Company (including a third-party administrator designated by the Company) a written or electronic notice of withdrawal on a form provided by the Company for this purpose. Such withdrawal may be elected at any time prior to the end of an Offering Period; provided, however, that if a Participant withdraws from the Plan after a Purchase Date, the withdrawal shall not affect shares of Stock acquired by the Participant on such Purchase Date. A Participant who voluntarily withdraws from the Plan is prohibited from resuming participation in the Plan in the same Offering from which he or she withdrew, but may participate in any subsequent Offering by again satisfying the requirements of Sections 5 and 7.1. The Company may impose, from time to

time, a requirement that the notice of withdrawal from the Plan be on file with the Company office or representative designated by the Company for a reasonable period prior to the effectiveness of the Participant's withdrawal.

12.2 **Return of Plan Account Balance.** Upon a Participant's voluntary withdrawal from the Plan pursuant to Section 12.1, the Participant's accumulated Plan account balance which has not been applied toward the purchase of shares of Stock shall be refunded to the Participant as soon as practicable after the withdrawal, without the payment of any interest (except as otherwise required by Local Law in connection with an Offering under the Non-423 Plan), and the Participant's interest in the Plan and the Offering shall terminate. Such amounts to be refunded in accordance with this Section may not be applied to any other Offering under the Plan.

13. TERMINATION OF EMPLOYMENT OR ELIGIBILITY.

Upon a Participant's ceasing, prior to a Purchase Date, to be an Employee of the Participating Company Group for any reason, including retirement, disability or death, or upon the failure of a Participant to remain an Eligible Employee, the Participant's participation in the Plan shall terminate immediately. In such event, the Participant's Plan account balance which has not been applied toward the purchase of shares of Stock shall, as soon as practicable, be returned to the Participant or, in the case of the Participant's death, to the Participant's beneficiary designated in accordance with Section 20, if any, or legal representative, and all of the Participant's rights under the Plan shall terminate. Interest shall not be paid on sums returned pursuant to this Section 13 (except as otherwise required by Local Law in connection with an Offering under the Non-423 Plan). A Participant whose participation has been so terminated may again become eligible to participate in the Plan by satisfying the requirements of Sections 5 and 7.1.

14. EFFECT OF CHANGE IN CONTROL ON PURCHASE RIGHTS.

In the event of a Change in Control, the surviving, continuing, successor, or purchasing corporation or parent thereof, as the case may be (the *" **Acquiring Corporation** "*), may, without the consent of any Participant, assume or continue the Company's rights and obligations under outstanding Purchase Rights or substitute substantially equivalent purchase rights for the Acquiring Corporation's stock. If the Acquiring Corporation elects not to assume, continue or substitute for the outstanding Purchase Rights, the Purchase Date of the then current Offering Period shall be accelerated to a date before the date of the Change in Control specified by the Committee, but the number of shares of Stock subject to outstanding Purchase Rights shall not be adjusted. All Purchase Rights which are neither assumed or continued by the Acquiring Corporation in connection with the Change in Control nor exercised as of the date of the Change in Control shall terminate and cease to be outstanding effective as of the date of the Change in Control.

15. NONTRANSFERABILITY OF PURCHASE RIGHTS.

Neither payroll deductions or other amounts credited to a Participant's Plan account nor a Participant's Purchase Right may be assigned, transferred, pledged or otherwise disposed of in any manner other than as provided by the Plan or by will or the laws of descent and distribution. (A beneficiary designation pursuant to Section 20 shall not be treated as a disposition for this purpose.) Any such attempted assignment, transfer, pledge or other disposition shall be without effect, except that the Company may treat such act as an election to withdraw from the Plan as provided in Section 12.1. A Purchase Right shall be exercisable during the lifetime of the Participant only by the Participant.

16. COMPLIANCE WITH APPLICABLE LAW.

The issuance of shares of Stock or other property under the Plan shall be subject to compliance with all applicable requirements of federal, state and foreign securities law and other applicable laws, rules and regulations, and approvals by government agencies as may be required or as the Company deems necessary or advisable. A Purchase Right may not be exercised if the issuance of shares upon such exercise would constitute a violation of any applicable federal, state or foreign securities laws or other law or regulations or the requirements of any securities exchange or market system upon which the Stock may then be listed. In addition, no Purchase Right may be exercised unless (a) a registration statement under the Securities Act shall at the time of exercise of the Purchase Right be in effect with respect to the shares issuable upon exercise of the Purchase Right, or (b) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Purchase Right may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any shares under the Plan shall relieve the Company of any liability in respect of the failure to issue or sell such shares as to which such requisite authority shall not have been obtained. As a condition to the exercise of a Purchase Right, the Company may require the Participant to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation, and to make any representation or warranty with respect thereto as may be requested by the Company.

17. RIGHTS AS A STOCKHOLDER AND EMPLOYEE.

A Participant shall have no rights as a stockholder by virtue of the Participant's participation in the Plan until the date of the issuance of the shares of Stock purchased pursuant to the exercise of the Participant's Purchase Right (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for dividends, distributions or other rights for which the record date is prior to the date such shares are issued, except as provided in Section 4.2. Nothing herein shall confer upon a Participant any right to continue in the employ of the Participating Company Group or interfere in any way with any right of any Participating Company to terminate the Participant's employment at any time.

18. **NOTIFICATION OF DISPOSITION OF SHARES.**

The Company may require the Participant to give the Company prompt notice of any disposition of shares of Stock acquired by exercise of a Purchase Right. The Company may require that until such time as a Participant disposes of shares of Stock acquired upon exercise of a Purchase Right, the Participant shall hold all such shares in the Participant's name until the later of two years after the date of grant of such Purchase Right or one year after the date of exercise of such Purchase Right. The Company may direct that the certificates evidencing shares of Stock acquired by exercise of a Purchase Right refer to such requirement to give prompt notice of disposition.

19. **LEGENDS.**

The Company may at any time place legends or other identifying symbols referencing any applicable federal, state or foreign securities law restrictions or any provision convenient in the administration of the Plan on some or all of the certificates representing shares of Stock issued under the Plan. The Participant shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to a Purchase Right in the possession of the Participant in order to carry out the provisions of this Section. Unless otherwise specified by the Company, legends placed on such certificates may include but shall not be limited to the following:

> "THE SHARES EVIDENCED BY THIS CERTIFICATE WERE ISSUED BY THE CORPORATION TO THE REGISTERED HOLDER UPON THE PURCHASE OF SHARES UNDER AN EMPLOYEE STOCK PURCHASE PLAN AS DEFINED IN SECTION 423 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED. THE TRANSFER AGENT FOR THE SHARES EVIDENCED HEREBY SHALL NOTIFY THE CORPORATION IMMEDIATELY OF ANY TRANSFER OF THE SHARES BY THE REGISTERED HOLDER HEREOF. THE REGISTERED HOLDER SHALL HOLD ALL SHARES PURCHASED UNDER THE PLAN IN THE REGISTERED HOLDER'S NAME (AND NOT IN THE NAME OF ANY NOMINEE)."

20. **DESIGNATION OF BENEFICIARY.**

20.1 **Designation Procedure.** Subject to applicable Local Law and procedures, a Participant may file a written designation of a beneficiary who is to receive (a) shares and cash, if any, from the Participant's Plan account if the Participant dies subsequent to a Purchase Date but prior to delivery to the Participant of such shares and cash, or (b) cash, if any, from the Participant's Plan account if the Participant dies prior to the exercise of the Participant's Purchase Right. If a married Participant designates a beneficiary other than the Participant's spouse, the effectiveness of such designation may be subject to the consent of the Participant's spouse. A Participant may change his or her beneficiary designation at any time by written notice to the Company.

20.2 **Absence of Beneficiary Designation.** If a Participant dies without an effective designation pursuant to Section 20.1 of a beneficiary who is living at the time of the Participant's death, the Company shall deliver any shares or cash credited to the Participant's Plan account to the Participant's legal representative or as otherwise required by applicable law.

21. **NOTICES.**

All notices or other communications by a Participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

22. **AMENDMENT OR TERMINATION OF THE PLAN.**

The Committee may at any time amend, suspend or terminate the Plan, except that (a) no such amendment, suspension or termination shall affect Purchase Rights previously granted under the Plan unless expressly provided by the Committee, and (b) no such amendment, suspension or termination may adversely affect a Purchase Right previously granted under the Plan without the consent of the Participant, except to the extent permitted by the Plan or as may be necessary to qualify the Section 423 Plan as an employee stock purchase plan pursuant to Section 423 of the Code or to comply with any applicable law, regulation or rule. In addition, an amendment to the Plan must be approved by the stockholders of the Company within twelve (12) months of the adoption of such amendment if such amendment would authorize the sale of more shares than are then authorized for issuance under the Plan or would change the definition of the corporations that may be designated by the Committee as Participating Companies. Notwithstanding the foregoing, in the event that the Committee determines that continuation of the Plan or an Offering would result in unfavorable financial accounting consequences to the Company, the Committee may, in its discretion and without the consent of any Participant, including with respect to an Offering Period then in progress: (i) terminate the Plan or any Offering Period, (ii) accelerate the Purchase Date of any Offering Period, (iii) reduce the discount or the method of determining the Purchase Price in any Offering Period (e.g., by determining the Purchase Price solely on the basis of the Fair Market Value on the Purchase Date), (iv) reduce the maximum number of shares of Stock that may be purchased in any Offering Period, or (v) take any combination of the foregoing actions.

23. **NO REPRESENTATIONS WITH RESPECT TO TAX QUALIFICATION.**

Although the Company may endeavor to (a) qualify Purchase Rights for favorable tax treatment under the laws of the United States or jurisdictions outside of the United States (*e.g.* , options granted under Section 423 of the Code) or (b) avoid adverse tax treatment (*e.g.* , under Section 409A of the Code), the Company makes no representation to that effect and expressly disavows any covenant to maintain favorable or avoid unfavorable tax treatment, anything to the contrary in this Plan. The Company shall be unconstrained in its corporate activities without regard to the potential negative tax impact on Participants under the Plan.

24. **CHOICE OF LAW.**

Except to the extent governed by applicable federal law, the validity, interpretation, construction and performance of the Plan and each Subscription Agreement shall be governed by the laws of the State of Delaware, without regard to its conflict of law rules.

IN WITNESS WHEREOF, the undersigned Secretary of the Company certifies that the foregoing sets forth the SolarWinds Corporation 2018 Employee Stock Purchase Plan as duly adopted by the Board on October 4, 2018.

/s/ JASON W. BLISS
Jason W. Bliss, Secretary

APPENDIX A

Participating Companies in Section 423 Plan

SolarWinds Corporation

SolarWinds Worldwide, LLC

SolarWinds MSP US, Inc.

Librato, Inc.

Ajax Illinois Corp.

Papertrail Inc.

Loggly, Inc.

Trusted Metrics, Inc.

SolarWinds Canada Corporation

Participating Companies in Non-423 Plan

SolarWinds MSP UK Limited

SolarWinds Software Europe Limited

SolarWinds MSP Canada ULC

SolarWinds Software Asia Pte. Ltd.

SolarWinds Software Australia Pty Ltd

SolarWinds Czech s.r.o.

SolarWinds Poland sp.z o.o.

SolarWinds MSP International B.V.

SolarWinds MSP Technology B.V.

SolarWinds Software Portugal, Unipessoal Lda.

SolarWinds Software UK Limited

SpamExperts B.V.

SpamExperts Services Srl

Protected Networks GmbH

Pingdom AB

SOLARWINDS CORPORATION

INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN
(SUB-PLAN OF THE SOLARWINDS CORPORATION 2018 EMPLOYEE STOCK PURCHASE PLAN)

The following constitutes the provisions of the International Employee Stock Purchase Plan (herein called the "Sub-Plan") of the SolarWinds Corporation (the "Company"), a sub-plan of the SolarWinds Corporation 2018 Employee Stock Purchase Plan, as amended and restated (the "Plan").

1. Purpose . The primary purpose of the Sub-Plan is to provide a method whereby employees of the Company's Participating Non-U.S. Companies (as defined herein), will have an opportunity to acquire a proprietary interest in the Company through the purchase of shares of Stock. The Plan is also established to advance the interests of the Company and its stockholders by providing an incentive to attract, retain and reward such employees and by motivating them to contribute to the growth and profitability of the Participating Company Group. The Sub-Plan is implemented in accordance with Section 3.3 of the Plan.

2. Non-Qualification . The Sub-Plan is not intended to qualify as an employee stock purchase plan under Section 423(b) of the U.S. Internal Revenue Code of 1986, as amended. Grants of Purchase Rights to acquire Stock under the Sub-Plan are not intended to be Section 423(b) qualified offerings, as anticipated under Section 3.4 of the Plan and shall be deemed separate from the grant of Purchase Rights to acquire Stock under the Plan with respect to equal rights and privileges for purposes of preserving the Plan's Section 423 (b) qualification.

3. Governing Terms . All provisions of this Sub-Plan shall be governed by the Plan, except as otherwise provided herein.

4. Effective Date . This Sub-Plan shall be effective from the date of its adoption by the Board or Committee.

5. Definitions . All definitions in the Sub-Plan shall be interpreted in accordance with the Plan except as otherwise provided herein:

(a) " Eligible Employee " shall mean any person employed by a Participating Non-U.S. Company.

(b) " Participant " means any Eligible Employee who meets the eligibility and participation requirements set forth in Sections 6 and 7 of this Sub-Plan, below.

(c) " Participating Non-U.S. Company " shall mean any Subsidiary Corporation located outside of the United States that is identified by the Committee as appropriate for participation in the Sub-Plan.

6. Eligibility. Each individual who is an Eligible Employee on the applicable eligibility cutoff date (determined by the Company) prior to the start of the next Offering Period shall be eligible to participate in the Sub-Plan. For removal of doubt, the restrictions under Section 5.1 of the Plan shall not apply to Participants under the Sub-Plan including, without limitation, minimum employment hours per week or months per calendar year.

7. Participation. An Eligible Employee may become a Participant in the Sub-Plan pursuant to the steps and requirements outlined in Section 7 of the Plan.

8. Payroll Deductions and Other Approved Contributions.

(a) Except to the extent otherwise determined by the Committee, payroll deductions shall be made in accordance with Section 10 of the Plan. The Committee may, at its discretion, approve other methods for contributions including, without limitation, check, money wire, cash or standing order of the Participant's individual bank account.

(b) The amounts so collected shall be credited to the Participant's individual book account under the Sub-Plan, initially in the currency in which paid by the Participating Non-U.S. Company until converted into U.S. Dollars. Accordingly, all purchases of Stock under the Sub-Plan are to be made with the U.S. Dollars into which the payroll deductions for the Offering or other approved contributions have been converted. The amounts collected from a Participant may be commingled with the general assets of the Company or the Participating Non-U.S. Company and may be used for general corporate purposes, except as otherwise required by applicable laws.

(c) For purposes of determining the number of shares of Stock purchasable by a Participant, the payroll deductions or other approved contributions credited to each Participant's book account during each Offering Period shall be converted into U.S. Dollars on or shortly prior to the end of that Offering Period on the basis of the exchange rate determined by the Company. The Committee shall have the absolute discretion to determine the applicable exchange rate to be in effect for each end of an Offering Period by any reasonable method.

9. Exercise of Purchase Right. Exercise of the Purchase Right shall be in accordance with Section 11.1 of the Plan.

10. Withdrawal or Termination of Employment. Withdrawal from the Sub-Plan or ceasing to be an Eligible Employee or ceasing to be an Employee of the Participating Company Group shall be in accordance with Sections 12 and 13 of the Plan, respectively, subject to Section 11 of this Sub-Plan, below.

11. Transfer of Employment.

(a) In the event that a Participant who is an Eligible Employee of a Participating Non-U.S. Company is transferred and becomes an Employee of a different Participating Non-U.S. Company during an Offering Period, such individual may, subject to the terms and eligibility of this Sub-Plan, remain a Participant under this Sub-Plan for the duration of the Offering Period in

effect at that time. Unless otherwise required under Local Law, any payroll deductions or other approved contributions may continue to be held by the Participating Non-U.S. Company former employer of the Participant for the remainder of the Offering Period. At the last day of such Offering Period, all payroll deductions and other approved contributions made by or to such former employer Participating Non-U.S. Company and/or the current employer Participating Non-U.S. Company shall be aggregated for the purchase of shares of Stock subject to the terms and limitations of the Sub-Plan.

(b) In the event that an employee of the Company or a Participating Company in the U.S. who is a Participant in the Plan is transferred and becomes an employee of a Participating Non-U.S. Company during an Offering Period in effect under the Plan, such individual may become a Participant under the Sub-Plan for the duration of the Offering Period in effect at that time. Unless otherwise required under Local Law, any payroll deductions may continue to be held by the former employer Company or Participating Company in the U.S. for the remainder of the Offering Period. At last day of such Offering Period, all payroll deductions and other approved contributions made by or to the Company or Participating Company former employer or the employer Participating Non-U.S. Company may be aggregated for the purchase of shares of Stock subject to the terms and limitations of the Plan and the Sub-Plan.

12. Interest. Contributions received or held pursuant to the Sub-Plan shall accrue interest only to the extend required under Local Law.

13. Shares Subject to the Sub-Plan.

(a) The shares of the Stock purchasable by Participants under the Sub-Plan shall be made available from shares reserved under Section 4 of the Plan and any shares of Stock issued under the Sub-Plan will reduce, on a share-for-share basis, the number of shares of Stock available for subsequent issuance under the Plan.

(b) The Participant will have no interest or voting right in shares of Stock covered by his or her rights to purchase shares until such rights have been exercised and shares have been issued.

14. Administration. The Sub-Plan shall be administered in accordance with Section 3 of the Plan. The Committee may adopt rules or procedures relating to the operation and administration of the Sub-Plan to accommodate the specific requirements of the law and procedures of applicable jurisdictions. Without limiting the generality of the foregoing, the Committee is specifically authorized to adopt rules and procedures regarding handling of payroll deductions or other approved contributions, segregation of funds, payment of interest, conversion of local currency, payroll tax, withholding procedures and issuance of shares that vary with local requirements. The Committee may also adopt rules, procedures or sub-plans applicable to particular Participating Non-U.S. Companies or jurisdictions. The rules of such sub-plans may take precedence over other provisions of this Sub-Plan, but unless otherwise superseded by the terms of such sub-plan, the provisions of this Sub-Plan shall govern the operation of such sub-plan.

15. Transferability. Neither payroll deductions nor other funds credited to a Participant's account nor any rights with regard to the exercise of an Purchase Right or to receive shares of Stock under this Sub-Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than through designation of beneficiary procedures as provided in the Plan) by the Participant. In order to comply with applicable laws (including, without limitation, local securities and applicable exchange laws), the Company may require a Participant to retain the shares of Stock purchased on his or her behalf in a Company account or an account of a designated broker until the sale of such shares.

16. Amendment or Termination. The Committee may at any time terminate or amend this Sub-Plan. No such termination can affect Purchase Rights previously granted, nor may an amendment make any change in any Purchase Right theretofore granted which adversely affects the rights of any Participant. Notwithstanding any provision of the Plan or this Sub-Plan to the contrary, in order to comply with the laws in other countries in which the Company and the Participating Non-U.S. Companies operate or have Participants, the Company, by action of its duly authorized officers, in their sole discretion, shall have the power and authority at any time to establish "offering documents" and similar addenda to this Sub-Plan to modify administrative procedures and other terms and procedures, to the extent such actions may be necessary or advisable and take any action that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, no action may be taken hereunder that would violate any securities law or governing statute or any other applicable laws or cause the Plan not to comply with Section 423 of the Code.

17. Notices. All notices or other communications by a Participant to the Company under or in connection with the Sub-Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

18. Term of Sub-Plan. The Sub-Plan shall continue in effect until the expiration or termination of the Plan or the earlier termination of the Sub-Plan by the Committee.

19. Additional Restrictions on Transfer of Shares to Comply with applicable law. In order to comply with Local Law (including, without limitation, local securities and applicable foreign exchange laws), the Company may require a Participant to retain the shares of Stock purchased on his or her behalf in a Company account or an account of a designated broker until the sale of such shares of Stock.

20. No Additional Employment Rights. Neither the action of the Company in establishing the Sub-Plan, nor any action taken under the Sub-Plan by the Committee nor any provision of the Sub-Plan itself shall be construed so as to grant any person the right to remain in the employ of the Company or any Participating Non-U.S. Company for any period of specific duration, and such person's employment may be terminated at any time, with or without cause, subject to applicable laws.

21. Foreign Exchange Risk . Any changes or fluctuations in the exchange rate at which the payroll deductions or other approved contributions collected on the Participant's behalf are converted into U.S. Dollars in connection with each purchase of shares shall be borne solely by the Participant. Neither the Company nor any Participating Non-U.S. Company shall bear any exchange rate or foreign exchange risk in connection with the Sub-Plan.

SOLARWINDS CORPORATION.

SUB-PLAN TO THE 2018 EMPLOYEE STOCK PURCHASE PLAN FOR ELIGIBLE EMPLOYEES LOCATED IN THE EUROPEAN UNION ("EU") / EUROPEAN ECONOMIC AREA ("EEA")

1. PURPOSE OF THE SUB-PLAN.

(a) SolarWinds Corporation (the "Company") has established the SolarWinds Corporation 2018 Employee Stock Purchase Plan (the "Plan") to advance the interests of the Company and its stockholders by providing an incentive to attract, retain and reward Eligible Employees of the Participating Company Group and by motivating such persons to contribute to the growth and profitability of the Participating Company Group. The Plan provides Eligible Employees with an opportunity to acquire a proprietary interest in the Company through the purchase of Stock. The Plan is comprised of the Section 423 Plan and the Non-423 Plan. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan.

(b) Section 3.3 of the Plan authorizes the Committee to adopt one or more sub-plans as the Committee deems necessary or desirable to comply with the laws or regulations, tax policy, accounting principles or custom of foreign jurisdictions applicable to employees of a subsidiary business entity of the Company, provided that any such sub-plan shall be within the scope of the Non-423 Plan.

(c) The Committee has determined that it is in the best interests of the Company to establish a sub-plan to the Plan, with effect for Offering Periods beginning on or after March 16, 2019, for the purpose of complying with applicable Local Laws implementing the European Union ("EU") Prospectus Directive 2003/71/EC, as amended (the "Directive"), and any successor rules or regulations to the Directive, including EU Regulation 2017/1129 (the "Regulation") (together, the "EU Prospectus Rules"). The terms of the Plan shall, subject to the modifications in the following rules, constitute the sub-plan to the Plan for Eligible Employees located in any EU member state or European Economic Area ("EEA") treaty adherent state (the "Sub-Plan").

2. TERMS OF THE SUB-PLAN.

(a) Notwithstanding any other provision in the Plan, in no event shall the total contributions authorized by Participants located in EU member states or EEA treaty adherent states for the purchase of shares of Stock pursuant to an Offering, when combined with the total consideration of all other offers to the public by the Company of its securities within any EU member state or EEA treaty adherent state which may have to be included for purposes of determining the relevant threshold, as determined by the Committee in its sole discretion, exceed the amount of EUR 7,999,999, or such other amount as may be required to rely on the exclusion under Art. 1(2)(h) of the Directive (as implemented into Local Laws in the relevant EU member state or EEA treaty adherent state and/or as modified by and applicable under the Regulation) in any 12-month period. In order not to exceed this limit, the Company reserves the right to limit the number of shares of

Stock that may be purchased by each Participant to ensure that the total consideration of all offers of shares of Stock within any EU member state or EEA treaty adherent state does not exceed EUR 7,999,999, or such other amount as may be applicable, in any 12-month period. Any such limit imposed under this Sub-Plan will be applied to all Participants located in any EU member state or EEA treaty adherent state on similar terms and on a pro-rata basis.

(b) Subject to the terms of the Plan, the Committee reserves the right to amend or terminate the Sub-Plan at any time. Notwithstanding the foregoing, the Sub-Plan is automatically terminated without further action by the Committee if and when the Company can rely on another exemption from the prospectus filing requirement for the Plan under the EU Prospectus Rules that does not require the restrictions set forth in this Sub-Plan, as determined by the Committee in its sole discretion. In this case, Section 2(a) of the Sub-Plan shall no longer apply to purchases of shares of Stock under the Plan by Participants located in any EU member states or EEA treaty adherent states.

Exhibit 21.1

SUBSIDIARIES OF THE REGISTRANT

Ajax Illinois Corp. (Delaware)
Confio Corporation (Delaware)
Galaxy Technologies, LLC (Delaware)
IASO International, B.V. (Netherlands)
Librato, Inc. (Delaware)
LLC SolarWinds MSP Technology (Belarus)
Loggly, Inc. (Delaware)
LogicNow Acquisition Company B.V. (Netherlands)
LogicNow Acquisition Limited (United Kingdom)
LogicNow Pty Ltd (Australia)
N-able Technologies International, Inc. (Delaware)
Papertrail Inc. (Delaware)
Pingdom AB (Sweden)
Project Lake Holdings Limited (United Kingdom)
Protected Networks GmbH (Germany)
Rhino Software, Inc. (Wisconsin)
SolarWinds Canada Corporation (Nova Scotia)
SolarWinds Classic Holdings I, Inc. (Delaware)
SolarWinds Classic Holdings II, Inc. (Delaware)
SolarWinds Czech s.r.o. (Czech Republic)
SolarWinds Holdings, Inc. (Delaware)
SolarWinds Intermediate Holdings I, Inc. (Delaware)
SolarWinds Intermediate Holdings II, Inc. (Delaware)
SolarWinds International Holdings, Ltd. (Cayman Islands)
SolarWinds IP Holding Company Limited (Ireland)
SolarWinds Japan K.K. (Japan)
SolarWinds MSP Canada ULC (British Columbia)
SolarWinds MSP Cloud GmbH (Switzerland)
SolarWinds MSP Holdings Limited (United Kingdom)
SolarWinds MSP Holdings Worldwide, Ltd. (Cayman Islands)
SolarWinds MSP International B.V. (Netherlands)
SolarWinds MSP Technology B.V. (Netherlands)
SolarWinds MSP UK Limited (United Kingdom)
SolarWinds MSP US, Inc. (Delaware)
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 Limited (Ireland)
SolarWinds Software Netherlands B.V. (Netherlands)
SolarWinds Software Portugal, Unipessoal Lda. (Portugal)
SolarWinds Software UK, Ltd. (United Kingdom)
SolarWinds Sweden Holdings AB (Sweden)
SolarWinds Worldwide, LLC (Delaware)
SpamExperts B.V. (Netherlands)
SpamExperts Services Srl. (Romania)
Trusted Metrics, Inc. (Delaware)

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-227937) of SolarWinds Corporation of our reports dated February 25, 2019 and June 1, 2018 relating to the financial statements and financial statement schedule, which appear in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Austin, Texas
February 25, 2019

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, Kevin B. Thompson, 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)) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;
    c. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2019

By: /s/ Kevin B. Thompson

Kevin B. Thompson
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)) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;
    c. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2019

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, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kevin B. Thompson, 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 25, 2019	By:	/s/ Kevin B. Thompson
			Kevin B. Thompson
			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, 2018 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 25, 2019	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.